

09/708,974

L17 ANSWER 27 OF 43 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1964:75518 CAPLUS
DOCUMENT NUMBER: 60:75518
ORIGINAL REFERENCE NO.: 60:13280f-h
TITLE: Total synthesis of dl-garryine and dl-veatchine
AUTHOR(S): Nagata, Wataru; Narisada, Masayuki; Wakabayashi, Toshio; Sugawara, Tsutomu
CORPORATE SOURCE: Shionogi Co., Ltd., Osaka, Japan
SOURCE: J. Am. Chem. Soc. (1964), 86(5), 929-30
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB Cf. ibid. 85(15), 2342-3(1963). I (Me = mesyl) was converted in 56% overall yield into dl-dihydroveatchine (II) (R = CH₂CH₂OH), previously converted into garryine (Wiesner, et al., CA 48, 11433f) and into veatchine (Pelletier and Kawazu, CA 60, 3021c).

L17 ANSWER 28 OF 43 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1963:66694 CAPLUS
DOCUMENT NUMBER: 58:66694
ORIGINAL REFERENCE NO.: 58:11437e-g
TITLE: Structure of isojoervine
AUTHOR(S): Masamune, Tadashi; Takasugi, Mitsuo; Suzuki, Hiroshi; Kawahara, Shozo; Gohda, Masatoshi; Irie, Toshi
CORPORATE SOURCE: Hokkaido Univ., Sapporo
SOURCE: Bull. Chem. Soc. Japan (1962), 35, 1749-50
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB The structure I is found to be consonant with all chem. and spectral data for isojoervine, C₂₇H₃₃O₃N, which is a secondary base with two acylable hydroxyl groups and one .alpha..beta.-unsatd. oxo group, p 1684, 1630, and 1063 cm.⁻¹, .lambda. 330 m.m. (.epsilon. 250), 252 m.m. (inflection, .epsilon. 2900), 211 m.m. (.epsilon. 9000). Redn. of I with Li and MeOH in NH₃ at -70.degree. afforded .alpha.-dihydrojoervinol. Oppenauer oxidn. of I with cyclohexanone and Al isopropoxide gave isojoervone, m. 112-14.degree.; [.alpha.]_D 140.degree. (EtOH), 1682, 1642, and 1620 cm.⁻¹, .lambda. 234 m.m. (.epsilon. 22,000). Hydrogenation of I over Pt in HOAc gave dihydroisojoervine (II), m. 153-5.degree. and 171.5-2.5.degree., v 1679, 1625, and 1040 cm.⁻¹, .lambda. 238 m.m. (.epsilon. 9400). ppenauer oxidn. of II produced dihydroisojoervone, m. 108-10.degree., v 1712, 1687, and 1629 cm.⁻¹, .lambda. 238 m.m. (.epsilon. 9900). Hydride redn. of I yielded isojoervinol, m. 210-11.degree., .lambda. 212 m.m. (.epsilon. 6400). The spectral data suggested a double bond at C8-C9. Birch redn. of II gave .alpha.-tetrahydroisojoervine (III), m. 147-9.degree., 1731 cm.⁻¹, and .beta.-tetrahydroisojoervine (IV), m. 138-42.degree. (CHCl₃ addn. compd.); v 1741 cm.⁻¹. Neither the triacetate of III, m. 179-82.degree., nor the triacetate of IV, m. 168-8.5.degree. was identical with 22,27-trimino-17(20)-jervene-3,23-diol-11-one triacetate. Treatment of II with N tert-BuOK in refluxing tert-BuOH under N 1 hr. yielded V, m. 142-4.degree., v 1670, 1621, and 1036 cm.⁻¹, CHCl₃, 1678 and 1630 cm.⁻¹, .lambda. 239 m.m. (.epsilon. 8600). V was a weak tertiary base; the pKa of V, I, and II were 6.12, 6.92, and 7.08 in 50% EtOH. Acetylation of V with Ac₂O and CSH₃N at 100.degree. 3 hrs. gave a O,O-diacetate, p (CHCl₃) 1725, 1685, and 1632 cm.⁻¹; pKa, 4.47. Similar reactions, involving migration of 13(17) double bond to .alpha..beta.-position of the carbonyl group followed by cyclization, were observed with III and IV.

L17 ANSWER 29 OF 43 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1963:66693 CAPLUS
DOCUMENT NUMBER: 58:66693
ORIGINAL REFERENCE NO.: 58:11436g-h, 11437a-c
TITLE: Epimeric 2-bromo derivatives of 4,4-dimethylcholestan-3-one
AUTHOR(S): Malunowicz, I.
CORPORATE SOURCE: Coll. Agr., Wroclaw, Pol.
SOURCE: Bull. Acad. Polon. Sci. Ser. Sci. Chim. (1962), 10, 311-17
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Bromination of 3.39 g. 4,4-dimethylcholestan-3-one in HOAc and HBr by Br in HOAc at room temp., followed by NaBH₄ redn. of the oily product in C₆H₆-MeOH yielded the bromohydrin, which was acetylated with Ac₂O in C₅H₅N at room temp. and gave 2.8 g. 2.alpha.-bromo-3.beta.-acetoxy-4,4-dimethylcholestan-3-one (I), m. 169-70.degree. (EtOAc-MeOH), [.alpha.]_D -17.degree.. I refluxed 24 hrs. with 5% alc. KOH yielded 2.beta.-3.beta.-epoxy-4,4-dimethylcholestan-3-one (II), m. 97-8.degree. (Me₂CO-MeOH), [.alpha.]_D 53 which was reduced by LiAlH₄ in Et₂O to yield the known 4,4-dimethylcholestan-3.beta.-ol. Treatment of 600 mg. I with Zn-HOAc under reflux 1 hr. gave 300 mg. 4,4-dimethylcholestan-2-ene, m. 93-4.degree. (Me₂CO), [.alpha.]_D 29.degree., which was treated with BzOOH in CHCl₃ at 0.degree. 48 hrs. to give 80% 2.alpha.,3.alpha.-epoxy-4,4-dimethylcholestan-3-one (III), m. 84-5.degree. (EtOAc-MeOH), [.alpha.]_D 33.degree., which with LiAlH₄ redn. yielded the known 4,4-dimethylcholestan-3.alpha.-ol. Shaking 500 mg. II with 10 ml. HBr in CHCl₃ 15 min. yielded 380 mg. 2.beta.-bromo-4,4-dimethylcholestan-3.alpha.-ol (III), m. 107-8.degree. (EtOAc-MeOH), [.alpha.]_D 60.degree., which with Ac₂O-CSH₃N at room temp. yielded the 3.alpha.-acetate, which, refluxed with alc. KOH 24 hrs. yielded II. Oxidn. of 500 mg. III in C₆H₆HOAc with 4.5 ml. Kiliani's mixt. at room temp. 30 min. yielded 260 mg. 2.beta.-bromo-4,4-dimethylcholestan-3-one (IV), m. 111-12.degree. (EtOAc-MeOH), [.alpha.]_D 114.degree., .gamma. 1731 cm.⁻¹, indicative of an equatorial Br. That the Br is .beta.-oriented is shown by (1) its high specific rotation; (2) the epimerization of IV with HBr in HOAc at 27.degree. 12 hrs. to yield the 2.alpha.-bromo-4,4-dimethylcholestan-3-one (V), m. 73-5.degree. (EtOAc-EtOH), [.alpha.]_D 0 12.degree., y 1734 cm.⁻¹; (3) NaBH₄ redn. of IV to yield 2.beta.-bromo-4,4-dimethylcholestan-3.beta.-ol, m. 155-6.degree. (EtOH), [.alpha.]_D 33.degree., which with CrO₃ yielded IV, and when refluxed with alc. KOH gave 4,4-dimethylcholestan-3-one. Ring A must therefore be in the boat form. Redn. of V with NaBH₄, followed by acetylation with Ac₂O-CSH₃N at room temp. yielded I. Thus the stable bromo ketone is the equatorial 2.alpha.-bromo ketone with ring A in the chair conformation.

L17 ANSWER 30 OF 43 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1962:7883 CAPLUS
DOCUMENT NUMBER: 56:7883
ORIGINAL REFERENCE NO.: 56:1525h-i
TITLE: The alkaloids of the above-ground organs of Veratrum album. Composition of the alkaloids
AUTHOR(S): Vasperse-Schibig, R. J. F. and R. J. F.
CORPORATE SOURCE: Pharm. Inst. Zurich, Switz.
SOURCE: Pharm. Acta Helv. (1961), 36, 461-71
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The alkaloids are sep'd. by partition chromatography by using kieselguhr. The properties of the pure alkaloids, with respect to paper chromatography, were studied, and their identification in the alkaloidal exts. of V. album was then exam'd. by the same procedure. The presence of gerramine, gerralbaine, neogerralbaine, veratroylgadene, and protoveratrine A and B in 1 or more of the samples was demonstrated. In all the exts. exam'd., 1 unknown alkaloid (alkaloid Y) was found. The most toxic exts. contained ester alkaloids. Expts. with isolated pieces of the first stomach as well as the uterus of the cow, treated with powdered leaves and solns. of five exts., showed a decrease of the contractions. A sample contg. chiefly ester alkaloids increased the contractions.

L17 ANSWER 5 OF 43 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1966:404189 CAPLUS
 DOCUMENT NUMBER: 65:4189
 ORIGINAL REFERENCE NO.: 65:774b-b
 TITLE: Photochemical reactions, XXXVI. Photolytic degradation of O-acetylervine: structure and photochemical reactions of the nitrogen-free main products
 AUTHOR(S): Bozzato, G.; Schaffner, K.; Jeger, O.
 CORPORATE SOURCE: Eidg. Tech. Hochschule, Zurich, Switz.
 SOURCE: Chimia (Aarau) (1966), 20(4), 114-16
 DOCUMENT TYPE: Journal
 LANGUAGE: German

AB cf. CA 64, 19714g. On irradiation in dioxane with light λ_{max} 253.7 m μ , O-acetylervine (I) reacted to form II, III, and IV. The N-acetyl deriv. (V) was photostable under the same conditions. III, m. 135-6.degree., was photodecarbonylated to VI, m. 108.degree., and IV, m. 128.5.degree., was photohydrolyzed to VII, m. 111.degree.. III formed an aldoxime (VIII), m. 141-2.degree., which was converted (MeSO₃H, pyridine) to the nitrile (IX), m. 152.degree.. Treatment of VI with 0.1N KOH at room temp. yielded X, m. 158-66.degree.; identical with the product formed from XI (Fried and Klingsberg, CA 48, 13701b) by hydrogenation (Pd-C, EtOH) to XII, m. 139.degree., followed by hydrolysis with K₂CO₃-MeOH to XIII, m. 100.degree. and epimerization (Me₂SO, KO-tart-Bu) to X. The vinylidene ether structure of IV was shown by ozonolysis and hydrolytic decompn. to the acetaldehyde, identified by its 2,4-dinitrophenylhydrazone (30% yield), and by hydrogenation (Pd-C, EtOH) of the vinylidene double bond to XIV, m. 143.5.degree.. IV and XIV were hydrolyzed (KOH, boiling MeOH) to XV, m. 127.5.degree., and XVI, m. 189-90.degree., resp. XIV was also reacylated to IV, which was chem. hydrolyzed (H₂SO₄, glacial HOAc) to VII, in turn converted (KOH, boiling aq. MeOH) to XVII, m. 108.degree.. XVII was acetylated to the acetoxyketone (XVIII), m. 92.degree.. Ir, uv, and N.M.R. data and $[\alpha]_D$ for the various compds. were reported and discussed.

L17 ANSWER 6 OF 43 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1966:404188 CAPLUS
 DOCUMENT NUMBER: 65:4188
 ORIGINAL REFERENCE NO.: 65:774a-b
 TITLE: Rearrangement in the substitution reaction of 3-oxo-4.beta.-bromo-5.beta.-steroids
 AUTHOR(S): Sato, Yasuo; Muko, Masaaki; Ogaki, Yuichi; Takahashi, Tomoyoshi; Kimura, Takako; Aoki, Hiromitsu; Hagitani, Akira
 CORPORATE SOURCE: St. Paul's Univ., Tokyo
 SOURCE: Bull. Chem. Soc. Japan (1966), 39(4), 855
 DOCUMENT TYPE: Journal
 LANGUAGE: English

AB 4.beta.-Bromo-5.beta.-cholestan-3-one (8 g.) in 280 cc. AcOH refluxed 6 hrs. under N with 56 g. AcOK yielded 2.6 g. 2.beta.-acetoxy-5.beta.-cholestan-3-one, m. 149-51.degree., $[\alpha]_D^{25}$ 8.0.degree., $[\alpha]_D^{400}$ 8.0.degree., $[\alpha]_D^{308}$ -195.0.degree., $[\alpha]_D^{285}$ 205.0.degree.. Me 4.beta.-bromo-3-oxocholane (2 g.), 11 g. AcOK, and 55 cc. AcOH yielded similarly 1.3 g. Me 2.beta.-acetoxy-3-oxocholane, m. 168.5-70.degree., $[\alpha]_D^{25}$ 5.5.degree., $[\alpha]_D^{380}$ 9.0.degree., $[\alpha]_D^{309}$ -190.0.degree., $[\alpha]_D^{285}$ 230.0.degree..

L17 ANSWER 7 OF 43 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1966:96686 CAPLUS
 DOCUMENT NUMBER: 64:96686
 ORIGINAL REFERENCE NO.: 64:18245a-b
 TITLE: Some pharmacologic effects of Veratrum alkaloids in sheep and goats
 AUTHOR(S): Buck, W. B.; Keeler, R. F.; Binns, Wayne
 CORPORATE SOURCE: Natl. Animal Disease Lab., Ames, IA
 SOURCE: Ann. N.Y. Acad. Sci. (1966), 140, 54
 DOCUMENT TYPE: Journal
 LANGUAGE: English

AB Infusion of EtOH exts. and purified alkaloids from V. californicum and ester alkaloidal mixts. from V. viride into the jugular vein resulted in a potent hyperglycemic effect in intact and adrenalectomized female sheep and goats. When large amts. of alkaloid were infused, there was a concomitant increase in electroencephalogram (EEG) wave amplitude, and this was followed in a few sec. by complete cessation of EEG activity. This treatment also reduced respiration and stimulated skeletal muscle and gastrointestinal activity. Administration of O by artificial respiration reversed the effects on the EEG and enabled the animals to recover rapidly. The hyperglycemic effect, which may have resulted from an inhibition of glucose utilization, probably caused cessation of EEG activity and may explain the mechanism by which Veratrum produces congenital cyclopic deformities in lambs (ibid. 24(103), 1164-75(1963)). 17 references.

L17 ANSWER 8 OF 43 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1966:68046 CAPLUS
 DOCUMENT NUMBER: 64:68046
 ORIGINAL REFERENCE NO.: 64:12746f-h, 12747a-b
 TITLE: Alkaloids of Petilium. eduardi
 AUTHOR(S): Shakirov, R.; Nuriddinov, R. N.; Yunusov, S. Yu.
 CORPORATE SOURCE: Inst. Chem. Vegetable Compds., Tashkent
 SOURCE: Khim. Prirodn. Soedin., Akad. Nauk Uz. SSR (1965), (6), 384-92
 DOCUMENT TYPE: Journal
 LANGUAGE: Russian

AB cf. CA 63, 1858e, 3007f. Imperialine (I), edpetilidine (II), eduardine (III), and edpetiline (IV) (total alkaloids 1.1%) were obtained from upper parts of P. eduardi, gathered in Shargun area by the described method (loc. cit.). Raw material, gathered in Babatag (total alkaloids 1.25%) gave I and IV; the alkaloid fraction, obtained by the extn. of the acid aq. soln. with CHCl₃, gave by fractional crystn. III and edpetilidine (V), C₂₇H₄₅O₂N, m. 269-71.degree. (MeOH), $[\alpha]_D^{25}$ 42.48.degree. (c 0.306, alc.), nu. 3425 (OH), 1465, and 2930 (CMe) cm.⁻¹; HCl salt m. 283.degree. (decompn.); HBr salt m. 281-2.degree.. Petimisine (VI) and the base 8, m. 253-7.degree. (Me₂CO-MeOH 9:1) were obtained from the mother liquor. The mother liquor after VI gave imperialone. II, C₂₇H₄₅O₂N, m. 227-8.degree. (MeOH), was a tertiary base, $[\alpha]_D^{25}$ -48.19.degree. (c 2.324, pyridine), Rf 0.85 (BuOH satd. with 5% AcOH), nu. 3425 (OH), 2925, and 1455 (CMe) cm.⁻¹; HCl salt m. 283-5.degree. (Me₂CO); HBr salt m. 270-2.degree. (Me₂CO); HI salt m. 262-3.degree. (Me₂CO); nitrate m. 225.degree. (H₂O, decompn.); methiodide m. 292-4.degree. (MeOH). III, C₂₇H₄₃O₂N, m. 247-51.degree. (EtOH), was a tertiary base without the NMe group, $[\alpha]_D^{25}$ -53.02 (c 0.977; MeOH), Rf 0.83 (BuOH satd. with 5% AcOH), nu. 3530 (OH), 1700 (CO), 1450, and 2930 (CMe) cm.⁻¹; Rf values of I, IV, and V in the system BuOH-AcOH-H₂O 4:1:5 were 0.80, 0.86, and 0.82, resp. Curves of uv spectra of I and IV were shown. The structure of IV was given (loc. cit.).

L17 ANSWER 1 OF 43 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1966:449755 CAPLUS
 DOCUMENT NUMBER: 65:49755
 ORIGINAL REFERENCE NO.: 65:9343e-f
 TITLE: Isolation and identification of alkaloids from
 Veratrum lobelianum. I
 AUTHOR(S): Shinkarenko, A. L.; Bondarenko, N. V.
 CORPORATE SOURCE: Pharm. Inst., Pyatigorsk
 SOURCE: Rast. Resursy (1966), 2(1), 45-50
 DOCUMENT TYPE: Journal
 LANGUAGE: Russian
 AB The total amt. of alkaloids in the plants from Northern Caucasus at
 1217-2000 m. above sea level was 0.23-1.4 in the leaves, 0.6-1.86 in the
 roots, and 0.09-1.41% in the stalks, during vegetation, blooming, and
 fruiting. The ether was replaced by CHCl₃ in Poethke gravimetric method
 (CA 31, 81107). The presence of 16 individual substances, with pos.
 Dragendorff test, was established in the CHCl₃ ext. by formamide paper
 chromatography, with CHCl₃, CHCl₃-C₆H₆, and CHCl₃-dioxane as solvents.
 Jervine, by Poethke method, and germinine, by chromatography, were
 isolated and identified. At altitudes of 1800 to 2000 m., the alkaloid
 content was generally higher. 27 references.

L17 ANSWER 2 OF 43 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1966:449754 CAPLUS
 DOCUMENT NUMBER: 65:49754
 ORIGINAL REFERENCE NO.: 65:9343d-e
 TITLE: Mineral nutrient studies in sugarcane
 AUTHOR(S): Bishop, R. T.
 SOURCE: Proc. Ann. Congr. S. African Sugar Technologists'
 Assoc. (1965), 39, 128-33
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB The abs. amts. of N, P, K, Ca, Mg, and Na in the aboveground portions of
 the plant were detd. during maturation. The correlation coeffs. between
 concns. of nutrients (N, P, K, Ca, Mg, Na, Cu, and Mn) in the third leaf
 blade and environmental factors (rainfall, soil moisture, stalk increment,
 air temp., total radiation, evapn., and soil temp.) are presented. The
 effect of the age of the crop on concn. of nutrients in third leaf blades
 is considered.

L17 ANSWER 3 OF 43 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1966:414987 CAPLUS
 DOCUMENT NUMBER: 65:14987
 ORIGINAL REFERENCE NO.: 65:2013b-c
 TITLE: Teratogenic compounds of Veratrum californicum
 (Durand). I. Preparation and characterization of
 fractions and alkaloids for biologic testing
 Keeler, Richard F.; Binns, Wayne
 CORPORATE SOURCE: Animal Disease & Parasite Res. Div., U.S. Dept. of
 Agr., Ames, IA
 SOURCE: Cancer Res. 26:1966:1-14
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB The isolation and identification of 4 known alkaloids (jervine,
 veratrosine, pseudojervine, and isorubijervine) was achieved from
 teratogenic fractions of V. californicum. Two addnl. alkaloids, not
 previously reported and designated alkaloids X and V, were also isolated
 from these fractions and partially characterized.

L17 ANSWER 4 OF 43 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1966:414986 CAPLUS
 DOCUMENT NUMBER: 65:14986
 ORIGINAL REFERENCE NO.: 65:2012f-h, 2013a-b
 TITLE: Mechanism for bradycardia induced by acute systemic
 anoxia in the dog
 AUTHOR(S): Litwin, J.; Skolaskinska, K.
 CORPORATE SOURCE: School Med., Warsaw
 SOURCE: Arch. Ges. Physiol. (1966), 289(2), 109-21
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB Studies on acute systemic anoxia were carried out on 46 heparinized,
 chloralose-anesthetized mongrel dogs weighing 9.5-20.0 kg., some of which
 were allowed to breathe spontaneously, others were artificially
 ventilated, tubocurarine.HCl 0.1 mg./kg. body wt., being administered
 intravenously to block the neuromuscular transmission. The artificially
 ventilated animals were divided into a closed- and an open-chest group.
 All animals exhibited a biphasic response of the heart, consisting of a
 primary tachycardia and a secondary bradycardia; the latter was marked and
 amounted to 45.8 and 67.2% redn. of heart rate in artificially ventilated
 and in spontaneously breathing animals, resp. The primary tachycardia was
 usually more distinct in spontaneously breathing animals as compared to
 those in which the respiration was controlled. Since bilateral vagotomy,
 atropinization, and ganglionic blockade considerably reduced the intensity
 of bradycardia and, in some cases, abolished it completely, it appeared
 that anoxic bradycardia was due mainly to an increased tone of the vagal
 cardioinhibitory center. Moderate slowing of the heart, which persisted
 in some expts., following vagotomy, atropinization, and ganglionic
 blockade, appeared to be the outcome of the local depressant action of
 severe anoxia on the heart itself, but the local action of anoxia was only
 of secondary importance as compared to the nervous vagal mechanism. On
 the other hand, spinal-cord destruction and bilateral adrenalectomy both
 caused a significant enhancement of secondary anoxic bradycardia,
 indicating that a strong stimulation of the sympatho-adrenal system
 occurred throughout the anoxia, resulting in primary tachycardia and, in
 later stages of anoxia, opposing vagal slowing of the heart. A very
 marked exaggeration of bradycardia after adrenalectomy alone proved that
 increased release of catechol amines from the adrenal medulla was of
 paramount importance in this regard. Anoxic bradycardia did not result
 from stimulation of either baro- or chemoreceptors in the sino-aortic
 arch; some other mechanism, gave rise to the increased vagal discharge to
 the heart accounting for the anoxic bradycardia and constituted the
 principal factor responsible for cardiac slowing in anoxia; the reflexes
 from carotid and aortic receptors appeared to be of secondary importance.
 Such a mechanism may consist either in a reflex initiated at some
 unidentified receptors or in a central stimulating effect of anoxia on
 vagal cardioinhibitory neurons.

09/708,974

L15 ANSWER 3 OF 6 USPATFULL

ACCESSION NUMBER: 2001:158338 USPATFULL
 TITLE: Regulators of the hedgehog pathway, compositions and uses related thereto
 INVENTOR(S): Dudek, Henryk, Wellesley, MA, United States
 JI, Benxiu, Sharon, MA, United States
 PATENT ASSIGNEE(S): Curis, Inc., Cambridge, MA, United States (U.S. corporation)

NUMBER	KIND	DATE
US 6291516	B1	20010918
US 1999-417564		19991014 (9)

NUMBER	DATE
US 1999-115642	19990113 (60)
US 1999-119594	19990210 (60)
US 1999-142124	19990702 (60)

DOCUMENT TYPE: Utility
 FILE SEGMENT: GRANTED
 PRIMARY EXAMINER: Kraus, Frederick
 LEGAL REPRESENTATIVE: Vincent, Matthew P., Halstead, David P. Ropes & Gray
 NUMBER OF CLAIMS: 16
 EXEMPLARY CLAIM: 1
 NUMBER OF DRAWINGS: 19 Drawing Figure(s); 19 Drawing Page(s)
 LINE COUNT: 3730

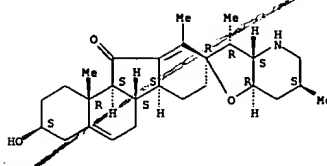
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention makes available methods and reagents for inhibiting aberrant growth states resulting from hedgehog gain-of-function, ptc loss-of-function or smoothened gain-of-function comprising contacting a cell with a compound, such as a polypeptide or small molecule in an amount sufficient to control the aberrant growth state, e.g., to agonize a normal ptc pathway or antagonize smoothened or hedgehog activity. The present invention further makes available methods and reagents for ameliorating the consequences of hedgehog loss-of-function, ptc gain-of-function, or smoothened loss-of-function comprising contacting a cell with a compound, such as a polypeptide or small molecule, in an amount sufficient to ameliorate the in certain embodiments, the subject compounds, e.g., a cAMP analog, adenylate cyclase agonist, or cAMP phosphodiesterase inhibitor, regulate cAMP levels, which in turn modulates activity of the hedgehog pathway.

IT 469-59-0, Jervine 4449-51-8, Cyclopamine
 (regulation of the hedgehog pathway and smoothened gain-of-function by gene patched agonists)
 RN 469-59-0 USPATFULL
 CN Spiro[9H-benzo[a]fluorene-9,2'-(3'H)-furo[3,2-b]pyridin]-11(1H)-one, 2,3,3',4,4',5',6,6',6a,6b,7,7',7'a,8,11a,11b-hexadecahydro-3-hydroxy-3',6',10,11b-tetramethyl-, (2'R,3S,3'R,3'aS,6'S,6aS,6bS,7'aR,11aS,11bR) - (9CI) (CA INDEX NAME)

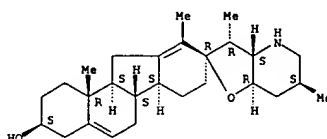
Absolute stereochemistry.

L15 ANSWER 3 OF 6 USPATFULL (Continued)



4449-51-8 USPATFULL
 Spiro[9H-benzo[a]fluorene-9,2'-(3'H)-furo[3,2-b]pyridin]-3-ol, 1,2,3,3',4,4',5',6,6',6a,6b,7,7',7'a,8,11,11a,11b-octadecahydro-3',6',10,11b-tetramethyl-, (2'R,3S,3'R,3'aS,6'S,6aS,6bS,7'aR,11aS,11bR) - (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L15 ANSWER 4 OF 6 USPATFULL

ACCESSION NUMBER: 2001:152946 USPATFULL
 TITLE: Cholesterol and hedgehog signaling
 INVENTOR(S): Beachy, Philip A., Baltimore, MD, United States
 Porter, Jeffrey A., Belmont, MA, United States
 Cooper, Michael K., Baltimore, MD, United States
 PATENT ASSIGNEE(S): The Johns Hopkins University School of Medicine, Baltimore, MD, United States (U.S. corporation)

NUMBER	KIND	DATE
US 6288048	B1	20010911
US 1999-250785		19990212 (9)

NUMBER	DATE
US 1998-74714	19980213 (60)

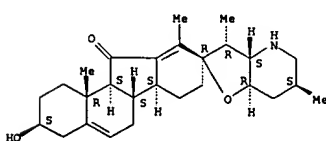
DOCUMENT TYPE: Utility
 FILE SEGMENT: GRANTED
 PRIMARY EXAMINER: Kraus, Frederick
 LEGAL REPRESENTATIVE: Gray Cary Ware & Freidenrich LLP, Haile, Lisa A.
 NUMBER OF CLAIMS: 3
 EXEMPLARY CLAIM: 1
 NUMBER OF DRAWINGS: 11 Drawing Figure(s); 7 Drawing Page(s)
 LINE COUNT: 1222

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention sterol-modified hedgehog polypeptides and functional fragments thereof. Methods of identifying compositions which affect hedgehog activity based on inhibition of cholesterol modification of hedgehog protein are described. In one aspect of the invention, the method provides a means for affecting cholesterol biosynthesis or transport in a cell comprising contacting a cell with an effective amount of a compound that affects hedgehog, thereby affecting cholesterol biosynthesis or transport. The effect may be inhibition or stimulation of cholesterol biosynthesis or transport.

IT 469-59-0, Jervine
 (cholesterol and hedgehog signaling, and modulation of cholesterol biosynthesis and transport)
 RN 469-59-0 USPATFULL
 CN Spiro[9H-benzo[a]fluorene-9,2'-(3'H)-furo[3,2-b]pyridin]-11(1H)-one, 2,3,3',4,4',5',6,6',6a,6b,7,7',7'a,8,11a,11b-hexadecahydro-3-hydroxy-3',6',10,11b-tetramethyl-, (2'R,3S,3'R,3'aS,6'S,6aS,6bS,7'aR,11aS,11bR) - (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L15 ANSWER 5 OF 6 USPATFULL

ACCESSION NUMBER: 2000:67202 USPATFULL
 TITLE: Method and apparatus for conditioning gas for medical procedures having humidity monitoring and recharge alert
 INVENTOR(S): Ott, Douglas E., 682 Foster Rd., Macon, GA, United States 31210
 Schaefer, John F., Macon, GA, United States
 Gray, Robert I., Macon, GA, United States
 PATENT ASSIGNEE(S): Ott, Douglas E., Macon, GA, United States (U.S. individual)

NUMBER	KIND	DATE
US 6068609		20000530
US 1998-81186		19980519 (9)

DOCUMENT TYPE: Utility
 FILE SEGMENT: GRANTED
 PRIMARY EXAMINER: Jockelman, Mark
 ASSISTANT EXAMINER: Thompson, Michael M
 LEGAL REPRESENTATIVE: Needle & Rosenberg, P.C.
 NUMBER OF CLAIMS: 42
 EXEMPLARY CLAIM: 1
 NUMBER OF DRAWINGS: 5 Drawing Figure(s); 4 Drawing Page(s)
 LINE COUNT: 991

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB An apparatus for conditioning gas for use in a medical procedure, such as endoscopy, the gas being received into the apparatus from a gas source. The apparatus comprises a housing defining a chamber having an entry port and an exit port. A humidification means comprising at least one water-retainer layer is disposed within the chamber in the path of travel of the gas for humidifying the gas as it passes through the chamber. A humidity sensor is disposed within the chamber that senses the humidity of the gas exiting the chamber. A monitoring circuit is connected to the humidity sensor that detects when the chamber requires a recharge of liquid based on the humidity of the gas in the chamber, and generates a recharge signal indicative thereof. A charging port on the housing provides access into the chamber to recharge the chamber with water. A heating element and temperature sensor are also disposed within the chamber. A control circuit further regulates the temperature of the gas exiting the chamber.

IT 469-59-0, Jervine 4449-51-8, Cyclopamine
 (use of steroidal alkaloid derivs. as inhibitors of hedgehog signaling pathways in relation to effect on cholesterol biosynthesis)
 RN 469-59-0 USPATFULL
 CN Spiro[9H-benzo[a]fluorene-9,2'-(3'H)-furo[3,2-b]pyridin]-11(1H)-one, 2,3,3',4,4',5',6,6',6a,6b,7,7',7'a,8,11a,11b-hexadecahydro-3-hydroxy-3',6',10,11b-tetramethyl-, (2'R,3S,3'R,3'aS,6'S,6aS,6bS,7'aR,11aS,11bR) - (9CI) (CA INDEX NAME)

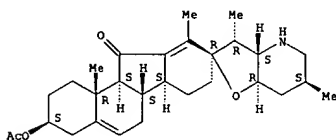
Absolute stereochemistry.

L14 ANSWER 12 OF 14 CAPLUS COPYRIGHT 2001 ACS
 ACCESSION NUMBER: 1995:686451 CAPLUS
 DOCUMENT NUMBER: 123:102413
 TITLE: O-acetylervine: a new .beta.-adrenoceptor agonist from Veratrum album
 AUTHOR(S): Gilani, Anvar; Aftab, Khalid; Saeed, S. A.; Ali, Rahat A.; Rahman, Atta-ur
 CORPORATE SOURCE: Medical College, Aga Khan Univ., Karachi, 74800, Pak.
 SOURCE: Arch. Pharmacol. Res. (1995), 18(2), 129-32
 CODEN: APHRDQ; ISSN: 0259-6269
 DOCUMENT TYPE: Journal
 LANGUAGE: English

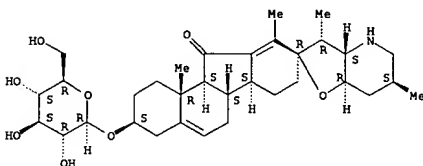
AB I.v. administration of O-acetylervine (an alkaloid from Veratrum album) produced a dose-dependent (10-100 .mu.g/kg) fall in blood pressure and tachycardia in anesthetized normotensive rats. Pretreatment of animals with propranolol (1 mg/kg) abolished these cardiovascular responses of O-acetylervine similar to that of isoprenaline (1 .mu.g/kg). In isolated tissue expts., O-acetylervine (10-100 .mu./mL) produced a dose-dependent relaxation of phenylephrine-induced contraction of the rabbit aorta. In guinea-pig spontaneously beating atria, it caused pos. inotropic and chronotropic responses in a dose-dependent fashion (10-100 .mu./mL). These responses were abolished in the presence of propranolol (1 .mu.g/mL) similar to that of isoprenaline. These results indicate that O-acetylervine is a adrenoceptor stimulant (.beta.1 and .beta.2) like isoprenaline.

IT 14788-78-4
 RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (O-acetylervine: a new .beta.-adrenoceptor agonist from Veratrum album)
 RN 14788-78-4 CAPLUS
 CN Spiro[9H-benzo[a]fluorene-9,2' (3'H)-furo[3,2-b]pyridin]-11(1H)-one, 3-(acetyloxy)-1,3,3'a,4,4',5',6,6',6a,6b,7,7',7'a,8,11a,11b-hexadecahydro-3',6',10,11b-tetramethyl-, (2'R,3S,3'R,3'aS,6'S,6aS,6bS,7'aR,11aS,11bR)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.



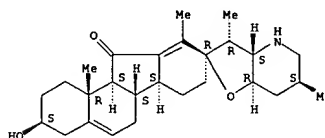
L14 ANSWER 13 OF 14 CAPLUS COPYRIGHT 2001 ACS (Continued)



L14 ANSWER 13 OF 14 CAPLUS COPYRIGHT 2001 ACS
 ACCESSION NUMBER: 1994:695050 CAPLUS
 DOCUMENT NUMBER: 121:295050
 TITLE: Biological activity of some alkaloids in feeding process of larvae and adults of the Colorado potato beetle
 AUTHOR(S): Vintechil, Zbigniew; Pkoske, Bohumil; Voticky, Zdeno; Navrat, Jary; Harmatha, Jura
 CORPORATE SOURCE: Inst. Ochrany Roslin, Poznan, 60-018, Pol.
 SOURCE: Mater. Ses. Nauk. Inst. Ochr. Rosl. (Poznan) (1993), 33(2), 52-6
 CODEN: MSNRD5; ISSN: 0208-4414
 DOCUMENT TYPE: Journal
 LANGUAGE: Polish

AB The antifeedant and toxic properties of 21 alkaloids against larvae and adults of the Colorado potato beetle were tested. Six compds. appeared good feeding deterrent for beetles, three compds. were simultaneously antifeedants and insecticides. Veratrine was the most active compd.
 IT 469-59-0, Jervine 36069-05-3, Pseudojervine
 RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BIOL (Biological study); USES (Uses)
 (antifeedant and toxic activity of some alkaloids in larvae and adults of the Colorado potato beetle)
 RN 469-59-0 CAPLUS
 CN Spiro[9H-benzo[a]fluorene-9,2' (3'H)-furo[3,2-b]pyridin]-11(1H)-one, 2,3,3'a,4,4',5',6,6',6a,6b,7,7',7'a,8,11a,11b-hexadecahydro-3-hydroxy-3',6',10,11b-tetramethyl-, (2'R,3S,3'R,3'aS,6'S,6aS,6bS,7'aR,11aS,11bR)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 36069-05-3 CAPLUS
 CN Spiro[9H-benzo[a]fluorene-9,2' (3'H)-furo[3,2-b]pyridin]-11(1H)-one, 3-(.beta.-D-glucopyranosyloxy)-2,3,3'a,4,4',5',6,6',6a,6b,7,7',7'a,8,11a,11b-hexadecahydro-3',6',10,11b-tetramethyl-, (2'R,3S,3'R,3'aS,6'S,6aS,6bS,7'aR,11aS,11bR)-(9CI) (CA INDEX NAME)

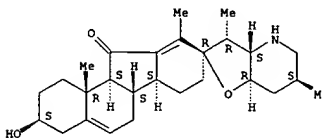
Absolute stereochemistry.

L14 ANSWER 14 OF 14 CAPLUS COPYRIGHT 2001 ACS
 ACCESSION NUMBER: 1972:108077 CAPLUS
 DOCUMENT NUMBER: 76:108077
 TITLE: Antiinflammatory activity of jervine
 AUTHOR(S): Geraschenko, G. I.; Bondarenko, N. V.; Semenenko, V. F.
 CORPORATE SOURCE: USSR
 SOURCE: Aktual. Vop. Farm. (1970), Volume Date 1969 169-71
 CODEN: AKVFWW
 DOCUMENT TYPE: Journal
 LANGUAGE: Russian

AB Jervine (I) [469-59-0] injected s.c. at 5 mg/kg/day 7 days into rats with a paw inflammation, induced by s.c. implanted cotton pellets, decreased the granuloma exudate and proliferation by 45 and 41%, resp., and the adrenal ascorbic acid [50-81-7] by 30%.

IT 469-59-0
 RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (inflammation inhibition by)
 RN 469-59-0 CAPLUS
 CN Spiro[9H-benzo[a]fluorene-9,2' (3'H)-furo[3,2-b]pyridin]-11(1H)-one, 2,3,3'a,4,4',5',6,6',6a,6b,7,7',7'a,8,11a,11b-hexadecahydro-3-hydroxy-3',6',10,11b-tetramethyl-, (2'R,3S,3'R,3'aS,6'S,6aS,6bS,7'aR,11aS,11bR)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.



09/708,974

=> d ibib ab hitstr 1-14

L14 ANSWER 1 OF 14 CAPLUS COPYRIGHT 2001 ACS
 ACCESSION NUMBER: 2001:507523 CAPLUS
 DOCUMENT NUMBER: 135:87198
 TITLE: Use of steroidal alkaloids to reverse multidrug resistance
 INVENTOR(S): Liscovitch, Mordechai; Lavie, Yaakov
 PATENT ASSIGNEE(S): Yeda Research and Development Co. Ltd., Israel
 SOURCE: PCT Int. Appl., 31 pp.
 CODEN: PIXX02
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001049279	A2	20010712	WO 2000-11866	20001228

V: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, NZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPL. INFO.: 1L 1999-133809 A 19991230

AB The invention provides steroidal alkaloids for inhibiting or reversing multidrug resistance in cancer or in bacterial, fungal or parasitic infections. The steroidal alkaloid may be administered to the patient alone or in combination with an anticancer, antibacterial, antifungal or antiparasitic agent. Examples of steroidal alkaloids include members of the solanidane or spirocolane families (e.g. tomatidine), and C-nor-D-homo steroids, e.g. of the jervane or veratramine families.

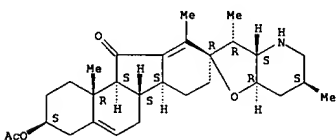
IT 469-59-0, Jervane 4449-51-8, Cyclopamine
 14410-98-1 14788-78-4 19773-24-1, Peimisine
 24508-94-9, Tetrahydrojervane 212968-58-6, Veraputaline
 347842-64-2
 RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (steroidal alkaloids for reversal of multidrug resistance)

RN 469-59-0 CAPLUS
 CN Spiro[9H-benzo[a]fluorene-9,2'-(3'H)-furo[3,2-b]pyridin]-11(1H)-one, 2,3,3'a,4,4',5',6,6',6a,6b,7,7',7'a,8,11a,11b-hexadecahydro-3'-hydroxy-3',6',10,11b-tetramethyl-, (2'R,3'S,3'R,3'aS,6'S,6aS,6bS,7'aR,11aS,11bR)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

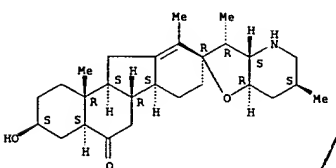
L14 ANSWER 1 OF 14 CAPLUS COPYRIGHT 2001 ACS (Continued)
 3',6',10,11b-tetramethyl-, (2'R,3'S,3'R,3'aS,6'S,6aS,6bS,7'aR,11aS,11bR)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.



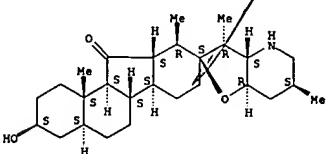
RN 19773-24-1 CAPLUS
 CN Spiro[9H-benzo[a]fluorene-9,2'-(3'H)-furo[3,2-b]pyridin]-5(6H)-one, 1,2,3,3'a,4,4',4a,5',6',6a,6b,7,7',7'a,8,11,11a,11b-octadecahydro-3'-hydroxy-3',6',10,11b-tetramethyl-, (2'R,3'S,3'R,3'aS,4aS,6'S,6aR,6bS,7'aR,11aS,11bR)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

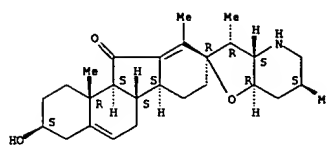


RN 24508-94-9 CAPLUS
 CN Spiro[9H-benzo[a]fluorene-9,2'-(3'H)-furo[3,2-b]pyridin]-11(2H)-one, eicosahydro-3'-hydroxy-3',6',10,11b-tetramethyl-, (2'S,3'S,3'R,3'aS,4aS,6'S,6aS,6bS,7'aR,10aR,10aS,11aS,11bS)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

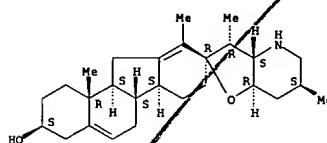


L14 ANSWER 1 OF 14 CAPLUS COPYRIGHT 2001 ACS (Continued)



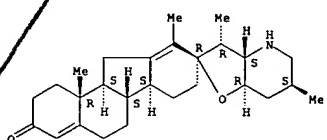
RN 4449-51-8 CAPLUS
 CN Spiro[9H-benzo[a]fluorene-9,2'-(3'H)-furo[3,2-b]pyridin]-3-ol, 1,2,3,3'a,4,4',5',6,6',6a,6b,7,7',7'a,8,11,11a,11b-octadecahydro-3',6',10,11b-tetramethyl-, (2'R,3'S,3'R,3'aS,6'S,6aS,6bS,7'aR,11aS,11bR)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 14410-98-1 CAPLUS
 CN Spiro[9H-benzo[a]fluorene-9,2'-(3'H)-furo[3,2-b]pyridin]-3(2H)-one, 1,3'a,4',5',5',6,6',6a,6b,7,7',7'a,8,11,11a,11b-hexadecahydro-3',6',10,11b-tetramethyl-, (2'R,3'R,3'aS,6'S,6aS,6bS,7'aR,11aS,11bR)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

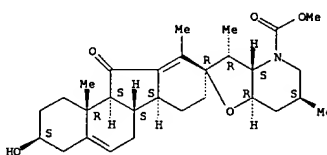


RN 14788-78-4 CAPLUS
 CN Spiro[9H-benzo[a]fluorene-9,2'-(3'H)-furo[3,2-b]pyridin]-11(2H)-one, 3-(acetyloxy)-1,3,3'a,4,4',5',6,6',6a,6b,7,7',7'a,8,11a,11b-hexadecahydro-3',6',10,11b-tetramethyl-, (2'R,3'R,3'aS,6'S,6aS,6bS,7'aR,11aS,11bR)-(9CI) (CA INDEX NAME)

L14 ANSWER 1 OF 14 CAPLUS COPYRIGHT 2001 ACS (Continued)

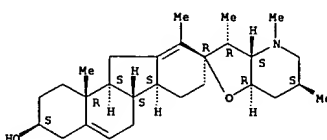
RN 212968-58-6 CAPLUS
 CN Spiro[9H-benzo[a]fluorene-9,2'-(3'H)-furo[3,2-b]pyridine]-4'(3'aH)-carboxylic acid, 1,2,3,4,5',6',6a,6b,7,7',7'a,8,11,11a,11b-hexadecahydro-3'-hydroxy-3',6',10,11b-tetramethyl-11-oxo-, methyl ester, (2'R,3'S,3'R,3'aS,6'S,6aS,6bS,7'aR,11aS,11bR)-(9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 347842-64-2 CAPLUS
 CN Spiro[9H-benzo[a]fluorene-9,2'-(3'H)-furo[3,2-b]pyridin]-3-ol, 1,2,3,3'a,4,4',5',6,6',6a,6b,7,7',7'a,8,11,11a,11b-octadecahydro-3',4',6',10,11b-pentamethyl-, (2'R,3'S,3'R,3'aS,6'S,6aS,6bS,7'aR,11aS,11bR)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.



09/708,974

L14 ANSWER 2 OF 14 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 2001:434884 CAPLUS

DOCUMENT NUMBER: 135:41031

TITLE:

Methods using hedgehog protein or hedgehog protein-encoding nucleic acid to stimulate insulin production by pancreatic beta-cells

INVENTOR(S): Habener, Joel F.; Thomas, Melissa K.

PATENT ASSIGNEE(S): The General Hospital Corporation, USA

SOURCE: PCT Int. Appl., 63 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001041786	A1	20010614	WO 2000-US33575	20001208

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 1999-170282 P 19991210

AB The invention features a method of treating deficiency of insulin in a patient, comprising administering to a patient in need thereof hedgehog protein or nucleic acid in an amt. effective to raise the level of insulin in the patient. A method is also disclosed for suppressing insulin secretion using hedgehog protein inhibitor, e.g. cyclopamine.

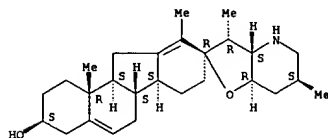
IT 4449-51-8, Cyclopamine 4449-51-8D, Cyclopamine, derivs.

RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (hedgehog protein or hedgehog protein-encoding nucleic acid to stimulate insulin prodn. by pancreatic beta-cells)

RN 4449-51-8 CAPLUS

CN Spiro[9H-benzo[a]fluorene-9,2'-(3'H)-furo[3,2-b]pyridin]-3-ol, 1,2,3,3'a,4,4',5',6,6',6a,6b,7,7',7'a,8,11,11a,11b-octadecahydro-3',6',10,11b-tetramethyl-, (2'R,3S,3'R,3'aS,6'S,6aS,6bS,7'aR,11aS,11bR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L14 ANSWER 3 OF 14 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 2001:283977 CAPLUS

DOCUMENT NUMBER: 134:295955

TITLE:

Synthesis, compositions and uses of steroidal alkaloids as regulators of the hedgehog pathway

INVENTOR(S): Beachy, Philip A.

PATENT ASSIGNEE(S): Johns Hopkins University School of Medicine, USA

SOURCE: PCT Int. Appl., 164 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001027135	A2	20010419	WO 2000-US28479	20001013

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 1999-159215 P 19991013

US 2000-229273 P 20000830

OTHER SOURCE(S): MARPAT 134:295955

AB The present invention makes available, inter alia, methods and reagents for modulating smoothened-dependent pathway activation. In certain embodiments, the subject methods can be used to counteract the phenotypic effects of unwanted activation of a hedgehog pathway, such as resulting from hedgehog gain-of-function, ptc loss-of-function or smoothened gain-of-function mutations. Synthesis of cyclopamine, jervine and cyclopamine derivs. is presented.

IT 306387-90-6P 334616-24-9P 334616-28-3P

334616-33-0P 334616-35-2P 334616-36-3P

334616-40-9P 334616-43-2P 334616-45-4P

334616-53-4P 334616-55-6P 334616-56-7P

334616-63-6P 334616-69-2P 334616-70-5P

334616-75-0P 334616-76-1P 334658-24-1P

RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(synthesis, compns. and uses of steroidal alkaloids as regulators of the hedgehog pathway)

RN 306387-90-6 CAPLUS

CN Benzenepropanamide, N-[[2-[[2-[(3'R,3'aS,6'S,6aS,6bS,7'aR,2'R,11aS,11bR)-1,2,3,3'a,4,4',5',6,6',6a,6b,7,7',7'a,8,11,11a,11b-octadecahydro-3',6',10,11b-tetramethyl-3-oxospiro[9H-benzo[a]fluorene-9,2'-(3'H)-furo[3,2-b]pyridin]-4'-yl]ethyl]amino]-6-oxohexyl]- (9CI) (CA INDEX NAME)

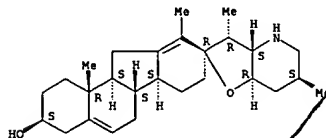
Absolute stereochemistry.

L14 ANSWER 2 OF 14 CAPLUS COPYRIGHT 2001 ACS (Continued)

RN 4449-51-8 CAPLUS

CN Spiro[9H-benzo[a]fluorene-9,2'-(3'H)-furo[3,2-b]pyridin]-3-ol, 1,2,3,3'a,4,4',5',6,6',6a,6b,7,7',7'a,8,11,11a,11b-octadecahydro-3',6',10,11b-tetramethyl-, (2'R,3S,3'R,3'aS,6'S,6aS,6bS,7'aR,11aS,11bR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



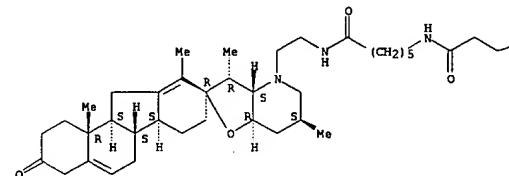
REFERENCE COUNT: 4

REFERENCE(S):

- (1) Genentech Inc; WO 9953058 A1 1999 CAPLUS
- (2) German; US 6127598 A 2000 CAPLUS
- (3) Hebrok, M; Genes and Development 1998, V12, P1705 CAPLUS
- (4) Kim, S; Proc Nat Acad Sci 1998, V95, P13036 CAPLUS

L14 ANSWER 3 OF 14 CAPLUS COPYRIGHT 2001 ACS (Continued)

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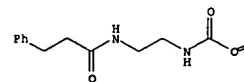
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RN 334616-24-9 CAPLUS

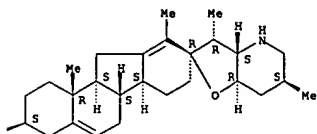
CN Carbamic acid, (2-[(1-oxo-3-phenylpropyl)amino]ethyl)-, (3S,3'R,3'aS,6'S,6aS,6bS,7'aR,2'R,11aS,11bR)-1,2,3,3'a,4,4',5',6,6',6a,6b,7,7',7'a,8,11,11a,11b-octadecahydro-3',6',10,11b-tetramethylspiro[9H-benzo[a]fluorene-9,2'-(3'H)-furo[3,2-b]pyridin]-3-yl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

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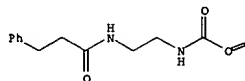
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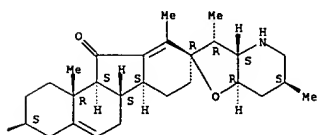
RN 334616-28-3 CAPLUS
CN Carbamic acid, [2-[(1-oxo-3-phenylpropyl)amino]ethyl]-, (3S,3'R,3'aS,6'S,6aS,6bS,7'aR,2'R,11aS,11bR)-1,2,3,3'a,4,4',5',6,6',6a,6b,7,7',7'a,8,11,11a,11b-octadecahydro-3',6',10,11b-tetramethyl-11-oxospiro[9H-benzo[a]fluorene-9,2'(3'H)-furo[3,2-b]pyridin]-3-yl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

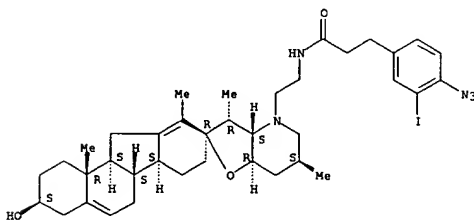
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PAGE 1-B

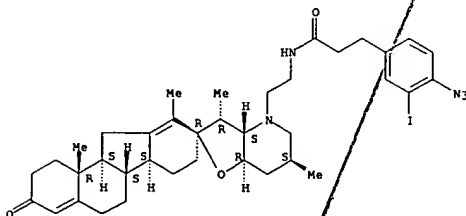


RN 334616-33-0 CAPLUS
CN Benzenepropanamide, N-[2-[(3'R,3'aS,6'S,6aS,6bS,7'aR,2'R,11aS,11bR)-1,2,3,3',3'a,4,5',6,6',6a,6b,7,7',7'a,8,11,11a,11b-octadecahydro-3',6',10,11b-tetramethyl-3-oxospiro[9H-benzo[a]fluorene-9,2'(4'H)-furo[3,2-



RN 334616-40-9 CAPLUS
CN Benzenepropanamide, 4-azido-3-iodo-N-[2-[(3'R,3'aS,6'S,6aS,6bS,7'aR,2'R,11aS,11bR)-1,2,3,3',3'a,4,5',6,6',6a,6b,7,7',7'a,8,11,11a,11b-octadecahydro-3',6',10,11b-tetramethyl-3-oxospiro[9H-benzo[a]fluorene-9,2'(4'H)-furo[3,2-b]pyridin]-4'-yl]ethyl]- (9CI) (CA INDEX NAME)

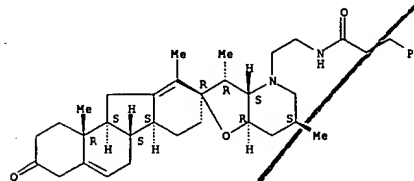
Absolute stereochemistry.



RN 334616-43-2 CAPLUS
CN Dodecanamide, N-[2-[(3S,3'R,3'aS,6'S,6aS,6bS,7'aR,2'R,11aS,11bR)-1,2,3,3',3'a,4,5',6,6',6a,6b,7,7',7'a,8,11,11a,11b-octadecahydro-3',6',10,11b-tetramethylspiro[9H-benzo[a]fluorene-9,2'(4'H)-furo[3,2-b]pyridin]-4'-yl]ethyl]-12-[(trifluoroacetyl)amino]- (9CI) (CA INDEX NAME)

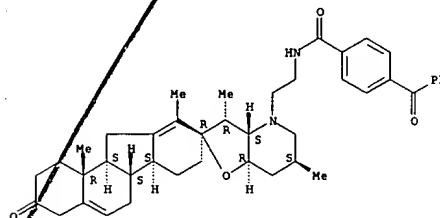
Absolute stereochemistry.

Absolute stereochemistry.



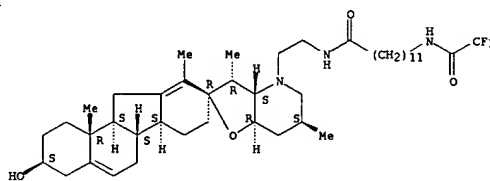
RN 334616-35-2 CAPLUS
CN Benzenamide, 4-benzoyl-N-[2-[(3'R,3'aS,6'S,6aS,6bS,7'aR,2'R,11aS,11bR)-1,2,3,3',3'a,4,5',6,6',6a,6b,7,7',7'a,8,11,11a,11b-octadecahydro-3',6',10,11b-tetramethyl-3-oxospiro[9H-benzo[a]fluorene-9,2'(4'H)-furo[3,2-b]pyridin]-4'-yl]ethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



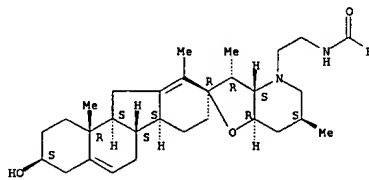
RN 334616-36-3 CAPLUS
CN Benzenepropanamide, 4-azido-3-iodo-N-[2-[(3S,3'R,3'aS,6'S,6aS,6bS,7'aR,2'R,11aS,11bR)-1,2,3,3',3'a,4,5',6,6',6a,6b,7,7',7'a,8,11,11a,11b-octadecahydro-3',6',10,11b-tetramethylspiro[9H-benzo[a]fluorene-9,2'(4'H)-furo[3,2-b]pyridin]-4'-yl]ethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 334616-45-4 CAPLUS
CN Propanamide, N-[2-[(3S,3'R,3'aS,6'S,6aS,6bS,7'aR,2'R,11aS,11bR)-1,2,3,3',3'a,4,5',6,6',6a,6b,7,7',7'a,8,11,11a,11b-octadecahydro-3',6',10,11b-tetramethylspiro[9H-benzo[a]fluorene-9,2'(4'H)-furo[3,2-b]pyridin]-4'-yl]ethyl]- (9CI) (CA INDEX NAME)

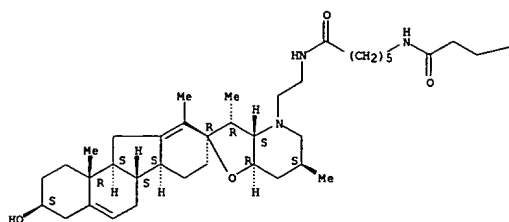
Absolute stereochemistry.



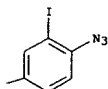
RN 334616-53-4 CAPLUS
CN Benzenepropanamide, 4-azido-3-iodo-N-[6-[[2-[(3S,3'R,3'aS,6'S,6aS,6bS,7'aR,2'R,11aS,11bR)-1,2,3,3',3'a,4,5',6,6',6a,6b,7,7',7'a,8,11,11a,11b-octadecahydro-3',6',10,11b-tetramethylspiro[9H-benzo[a]fluorene-9,2'(4'H)-furo[3,2-b]pyridin]-4'-yl]ethyl]amino]-6-oxohexyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

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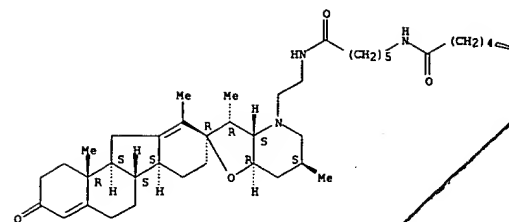
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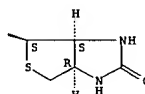
RN 334616-55-6 CAPLUS
 CN 1H-Thieno[3,4-d]imidazole-4-pentanamide, hexahydro-N-[6-[[2-[(2'R,3'R,3'aS,6'S,6aS,6bS,7'aR,11aS,11bR)-1,2,3,3',3'a,5,5',6,6',6a,6b,7,7',7'a,8,11,11a,11b-octadecahydro-3',6',10,11b-tetramethyl-3-oxospiro[9H-benzo[a]fluorene-9,2'(4'H)-furo[3,2-b]pyridin]-4'-yl]ethyl]amino]-6-oxohexyl]-2-oxo-, (3aS,4S,6aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

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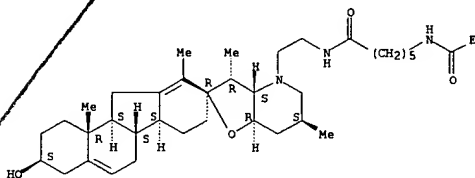


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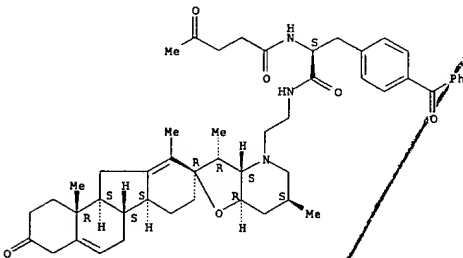
RN 334616-56-7 CAPLUS
 CN Hexanamide, N-[2-[(3S,3'R,3'aS,6'S,6aS,6bS,7'aR,2'R,11aS,11bR)-1,2,3,3',3'a,4,5',6,6',6a,6b,7,7',7'a,8,11,11a,11b-octadecahydro-3-hydroxy-3',6',10,11b-tetramethylspiro[9H-benzo[a]fluorene-9,2'(4'H)-furo[3,2-b]pyridin]-4'-yl]ethyl]-6-[(1-oxopropyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 334616-63-6 CAPLUS
 CN Benzenepropanamide, 4-benzoyl-.alpha.-[(1,4-dioxopentyl)amino]-N-[2-[(3'R,3'aS,6'S,6aS,6bS,7'aR,2'R,11aS,11bR)-1,2,3,3',3'a,4,5',6,6',6a,6b,7,7',7'a,8,11,11a,11b-octadecahydro-3',6',10,11b-tetramethyl-3-oxospiro[9H-benzo[a]fluorene-9,2'(4'H)-furo[3,2-b]pyridin]-4'-yl]ethyl]-, (.alpha.S)- (9CI) (CA INDEX NAME)

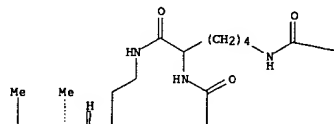
Absolute stereochemistry.



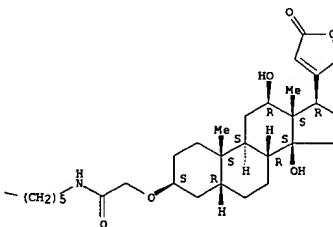
RN 334616-69-2 CAPLUS
 CN Card-20(22)-enolide, 3-[2-[[6-[[5-[(4-benzoylbenzoyl)amino]-6-[[2-[(2'R,3S,3'R,3'aS,6'S,6aS,6bS,7'aR,11aS,11bR)-1,2,3,3',3'a,4,5',6,6',6a,6b,7,7',7'a,8,11,11a,11b-octadecahydro-3-hydroxy-3',6',10,11b-tetramethylspiro[9H-benzo[a]fluorene-9,2'(4'H)-furo[3,2-b]pyridin]-4'-yl]ethyl]amino]-6-oxohexyl]amino]-6-oxohexyl]amino]-2-oxoethoxy]-12,14-dihydroxy-, (3.beta.,5.beta.,12.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

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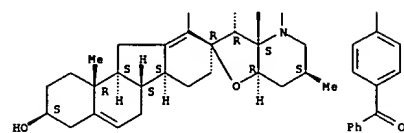


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09/708,974

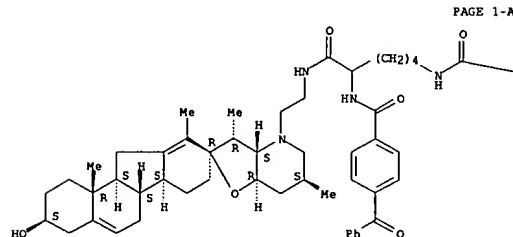
L14 ANSWER 3 OF 14 CAPLUS COPYRIGHT 2001 ACS (Continued)



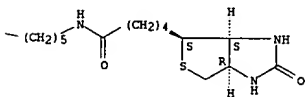
PAGE 2-A

RN 334616-70-5 CAPLUS
 CN 1H-Thieno[3,4-d]imidazole-4-pentanamide, N-[6-[[[5-[[4-benzoylbenzoyl]amino]-6-[[2-[[2-(2'R,3S,3'R,3'aS,6'S,6aS,6bS,7'aR,11aS,11bR)-1,2,3,3',3'a,4,5',6,6',6a,6b,7',7'a,8,11,11a,11b-octadecahydro-3-hydroxy-3',6',10,11b-tetramethylspiro[9H-benzo[a]fluorene-9,2'(4'H)-furo[3,2-b]pyridin]-4'-yl]ethyl]amino]-6-oxohexyl]hexahydro-2-oxo-, (3aS,4S,6aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



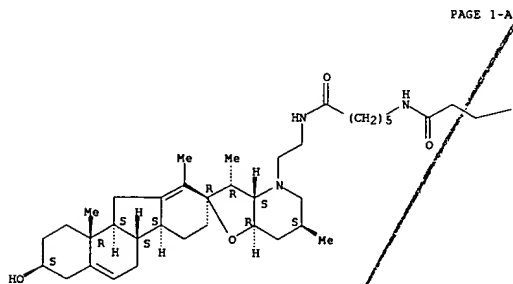
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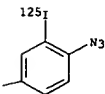
PAGE 1-B

L14 ANSWER 3 OF 14 CAPLUS COPYRIGHT 2001 ACS (Continued)
 CN Benzenepropanamide, 4-azido-3-(iodo-125I)-N-[6-[[[2-[[3S,3'R,3'aS,6'S,6aS,6bS,7'aR,2'R,11aS,11bR)-1,2,3,3',3'a,4,5',6,6',6a,6b,7',7'a,8,11,11a,11b-octadecahydro-3-hydroxy-3',6',10,11b-tetramethylspiro[9H-benzo[a]fluorene-9,2'(3'H)-furo[3,2-b]pyridin]-4'-yl]ethyl]amino]-6-oxohexyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



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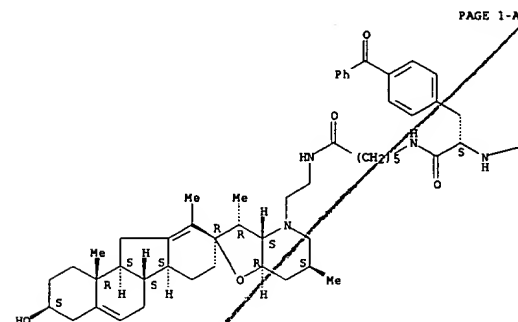
PAGE 1-B

RN 334658-24-1 CAPLUS
 CN Boron, [5-[[3,5-dimethyl-2H-pyrrol-2-ylidene-kappa.N)methyl]-N-[6-[[[2-[[3S,3'R,3'aS,6'S,6aS,6bS,7'aR,2'R,11aS,11bR)-1,2,3,3',3'a,4,5',6,6',6a,6b,7',7'a,8,11,11a,11b-octadecahydro-3-hydroxy-3',6',10,11b-tetramethylspiro[9H-benzo[a]fluorene-9,2'(4'H)-furo[3,2-b]pyridin]-4'-yl]ethyl]amino]-6-oxohexyl]-1H-pyrrole-2-propanamidato-kappa.N]difluoro-, (Z-4)- (9CI) (CA INDEX NAME)

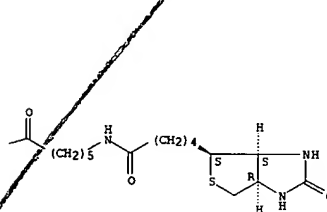
L14 ANSWER 3 OF 14 CAPLUS COPYRIGHT 2001 ACS (Continued)

RN 334616-75-0 CAPLUS
 CN 1H-Thieno[3,4-d]imidazole-4-pentanamide, N-[6-[[[15]-1-[[4-benzoylphenyl]methyl]-2-[[6-[[2-[[2-(2'R,3S,3'R,3'aS,6'S,6aS,6bS,7'aR,11aS,11bR)-1,2,3,3',3'a,4,5',6,6',6a,6b,7',7'a,8,11,11a,11b-octadecahydro-3-hydroxy-3',6',10,11b-tetramethylspiro[9H-benzo[a]fluorene-9,2'(4'H)-furo[3,2-b]pyridin]-4'-yl]ethyl]amino]-6-oxohexyl]amino]-2-oxoethyl]amino]-6-oxohexyl]hexahydro-2-oxo-, (3aS,4S,6aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



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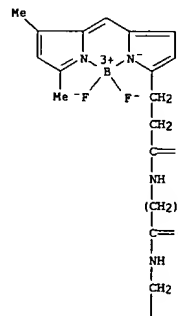


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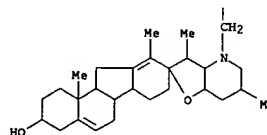
RN 334616-76-1 CAPLUS

L14 ANSWER 3 OF 14 CAPLUS COPYRIGHT 2001 ACS (Continued)

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09/708,974

L14 ANSWER 4 OF 14 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 2001:93871 CAPLUS
DOCUMENT NUMBER: 134:164524
TITLE: Photobiologically active coatings and their use
INVENTOR(S): Danz, Rudi; Elling, Burkhard; Buechtemann, Andreas
PATENT ASSIGNEE(S): Fraunhofer-Gesellschaft zur Foerderung der Angewandten
Forschung e.V., Germany
SOURCE: Ger. Offen., 6 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

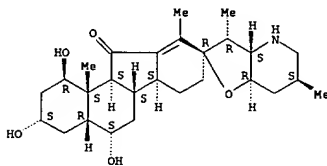
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19935179	A1	20010208	DE 1999-19935179	19990727

AB The invention concerns a photobiol. active coating contg. a polymer binder, which is transparent to visible light, and an active substance, which, by visible light, is electronically activatable for prodn. of singlet oxygen and/or org. radicals so as to impart biocidal activity to the coating. These coatings are useful in the food packaging, medicine, and textile industry. A typical coating is based on polydimethylsiloxane and contained 0.5% photoactive tris(4,7-diphenyl-1,10-phenanthroline)ruthenium (II) diperchlorate, 1% fluorescing naphthalimide photoinitiator, and 10% silica gel.

IT 73667-53-5, Verdine
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(active additive; biocidal coatings contg. compds. forming singlet oxygen or org. radicals)

RN 73667-53-5 CAPLUS
CN Spiro[9H-benzo[a]fluorene-9,2'-(3'H)-furo[3,2-b]pyridin]-11(1H)-one, 2,3,3',4,4',4a,5,5',6,6',6a,6b,7,7',7'a,8,11a,11b-octadecahydro-1,3,5-trihydroxy-3',6',10,11b-tetramethyl-, (1R,2'R,3S,3'R,3'aS,4aR,5S,6'S,6aS,6bS,7'aR,11aS,11bS) - (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 9
REFERENCE(S):
(1) Anon: EP 0832937 A1 CAPLUS
(2) Anon: DE 19500634 C1 CAPLUS
(3) Anon: DE 19618674 A1 CAPLUS

L14 ANSWER 5 OF 14 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 2000:880985 CAPLUS
DOCUMENT NUMBER: 134:37058
TITLE: Therapeutic use of an inhibitor of a hedgehog or a hedgehog-related signaling pathway
INVENTOR(S): Lamb, Jonathan Robert; Hoyne, Gerard Francis; Dallman, Margaret Jane
PATENT ASSIGNEE(S): Loralis Limited, UK
SOURCE: PCT Int. Appl., 78 pp.
CODEN: P1XXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000074706	A1	20001214	WO 2000-GB2191	20000605

V: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, NZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SI, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, HL, HR, NE, SN, TD, TG

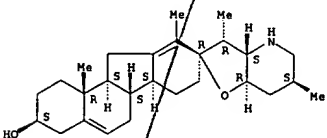
PRIORITY APPLN. INFO.: GB 1999-13350 A 19990608
GB 1999-21953 A 19990916

AB Use of an inhibitor of a Hedgehog signaling pathway, or an inhibitor of a pathway which is a target of the Hedgehog signaling pathway in the prepn. of a medicament for treatment of epithelial cell hyperplasia, fibrosis of tissue, inflammation, cancer or an immune disorder. Also a transgenic animal or cell line capable of expressing a component or an inhibitor of a hedgehog signaling pathway or a target pathway of the hedgehog signaling pathway.

IT 4449-51-8, Cyclopamine
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(therapeutic use of inhibitor of hedgehog protein or hedgehog-related signaling pathway and transgenic animal or cell line expressing component or inhibitor of these pathways)

RN 4449-51-8 CAPLUS
CN Spiro[9H-benzo[a]fluorene-9,2'-(3'H)-furo[3,2-b]pyridin]-3-ol, 1,2,3,3',4,4',5',6',6',6a,6b,7,7',7'a,8,11,11a,11b-octadecahydro-3',6',10,11b-tetramethyl-, (2'R,3S,3'R,3'aS,6'S,6aS,6bS,7'aR,11aS,11bR) - (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L14 ANSWER 4 OF 14 CAPLUS COPYRIGHT 2001 ACS (Continued)
(4) Anon: DE 19649662 A1 CAPLUS
(5) Anon: DE 19709008 A1 CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 5 OF 14 CAPLUS COPYRIGHT 2001 ACS (Continued)
REFERENCE COUNT: 8
REFERENCE(S):
(1) Deutsches Krebsforschungszentrum Stiftung Des
Offentlichen Rechts: WO 9922000 A 1999 CAPLUS
(3) Fujita, E: BIOCHEMICAL AND BIOPHYSICAL RESEARCH
COMMUNICATIONS 1997, V238(2), P658 CAPLUS
(4) Johns Hopkins University School Of Medicine: WO
9952534 A 1999 CAPLUS
(5) Kabushiki Kaisha Hayashibara Seibutsu Kagaku
Kenkyujo: EP 0874048 A 1998 CAPLUS
(6) Murone, M: CURRENT BIOLOGY 1999, V9(2), P76 CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

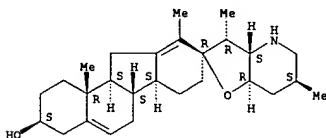
L14 ANSWER 6 OF 14 CAPLUS COPYRIGHT 2001 ACS
 ACCESSION NUMBER: 2000:637045 CAPLUS
 DOCUMENT NUMBER: 133:34307
 TITLE: Effects of oncogenic mutations in Smoothened and Patched can be reversed by cyclopamine
 AUTHOR(S): Tsipale, Jussli; Chen, James K.; Cooper, Michael K.; Wang, Baolin; Mann, Randall K.; Milenkovic, Ljiljana; Scotts, Matthew P.; Beachy, Philip A.
 CORPORATE SOURCE: Department of Molecular Biology and Genetics, The Johns Hopkins University School of Medicine, Baltimore, MD, 21205, USA
 SOURCE: Nature (London) (2000), 406(6799), 1005-1009
 CODEN: NATUAS; ISSN: 0028-0836
 PUBLISHER: Nature Publishing Group
 DOCUMENT TYPE: Journal
 LANGUAGE: English

AB Basal cell carcinoma, medulloblastoma, rhabdomyosarcoma and other human tumors are assocd. with mutations that activate the proto-oncogene Smoothened (SMO) or that inactivate the tumor suppressor Patched (PTCH). Smoothened and Patched mediate the cellular response to the Hedgehog (Hh) secreted protein signal, and oncogenic mutations affecting these proteins cause excess activity of the Hh response pathway. Here we show that the plant-derived teratogen cyclopamine, which inhibits the Hh response, is a potential 'mechanism-based' therapeutic agent for treatment of these tumors. We show that cyclopamine or synthetic derivs. with improved potency block activation of the Hh response pathway and abnormal cell growth assocd. with both types of oncogenic mutation. Our results also indicate that cyclopamine may act by influencing the balance between active and inactive forms of Smoothened.

IT 4449-51-8, Cyclopamine 306387-90-6
 RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (effects of oncogenic mutations in Smoothened and Patched can be reversed by cyclopamine)

RN 4449-51-8 CAPLUS
 CN Spiro[9H-benzo[a]fluorene-9,2' (3'H)-furo[3,2-b]pyridin]-3-ol, 1,2,3,3'a,4,4',5',6,6',6a,6b,7,7',7'a,8,11,11a,11b-octadecahydro-3',6',10,11b-tetramethyl-, (2'R,3S,3'R,3'aS,6'S,6aS,6bS,7'aR,11aS,11bR) - (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 306387-90-6 CAPLUS
 CN Benzenepropanamide, N-[6-[[2-[(3'R,3'aS,6'S,6aS,6bS,7'aR,2'R,11aS,11bR)-1,2,3,3'a,4,4',5',6,6',6a,6b,7,7',7'a,8,11,11a,11b-octadecahydro-

L14 ANSWER 7 OF 14 CAPLUS COPYRIGHT 2001 ACS
 ACCESSION NUMBER: 2000:493313 CAPLUS
 DOCUMENT NUMBER: 133:99549
 TITLE: Regulation of the hedgehog pathway and smoothened gain-of-function by gene patched agonists
 INVENTOR(S): Dudek, Henryk; Ji, Benxiu
 PATENT ASSIGNEE(S): Ontogeny, Inc., USA
 SOURCE: PCT Int. Appl., 114 pp.
 CODEN: PIXX02
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000041545	A2	20000720	WO 2000-US873	20000113
WO 2000041545	A3	20000928		
V: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GM, GW, ML, MR, NE, NG, SN, TD, TG				
US 6291516	B1	20010918	US 1999-417564	19991014
EP 1143961	A2	20011017	EP 2000-906910	20000113
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
US 2001034337	A1	20011025	US 2001-867311	20010529
PRIORITY APPLN. INFO.:				
US 1999-115642 P 19990113				
US 1999-119594 P 19990210				
US 1999-142124 P 19990702				
US 1999-417564 A 19991014				
WO 2000-US873 V 20000113				

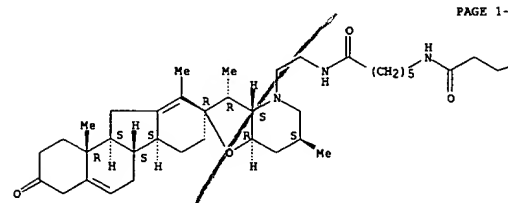
OTHER SOURCE(S): MARPAT 133:99549
 AB The present invention makes available methods and reagents for inhibiting aberrant growth states resulting from hedgehog gain-of-function, patched (ptc) loss-of-function or smoothened/gain-of-function comprising contacting a cell with a compd., such as a polypeptide or small mol. in an amt. sufficient to control the aberrant growth state, e.g., to agonize a normal ptc pathway or antagonize smoothened or hedgehog activity. The present invention further makes available methods and reagents for ameliorating the consequences of hedgehog loss-of-function, ptc gain-of-function, or smoothened/loss-of-function comprising contacting a cell with a compd., such as a polypeptide or small mol., in an amt. sufficient for amelioration. In certain embodiments, the subject compds., e.g., a cAMP analog, adenylate cyclase agonist, or cAMP phosphodiesterase inhibitor, regulate cAMP levels, which in turn modulates activity of the hedgehog pathway. Thus, compds. such as jervine, cyclopamine, and forskolin analogs are also effective in inhibition of medulloblastoma.

IT 469-59-0, Jervine 4449-51-8, Cyclopamine
 RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (regulation of the hedgehog pathway and smoothened gain-of-function by gene patched agonists)

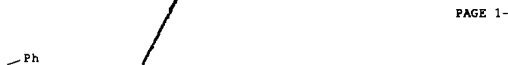
RN 469-59-0 CAPLUS
 CN Spiro[9H-benzo[a]fluorene-9,2' (3'H)-furo[3,2-b]pyridin]-11(1H)-one, 2,3,3'a,4,4',5',6,6',6a,6b,7,7',7'a,8,11a,11b-hexadecahydro-3-hydroxy-

L14 ANSWER 6 OF 14 CAPLUS COPYRIGHT 2001 ACS (Continued)
 3',6',10,11b-tetramethyl-3-oxospiro[9H-benzo[a]fluorene-9,2' (3'H)-furo[3,2-b]pyridin]-4'-yl]ethyl]amino]-6-oxohexyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



PAGE 1-A

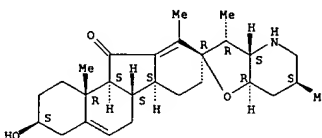


PAGE 1-B

REFERENCE COUNT: 29
 REFERENCE(S):
 (1) Aza-Blanc, F; Cell 1997, V89, P1043 CAPLUS
 (2) Beachy, P; Spring Harb Symp Quant Biol 1997, V62, P191 CAPLUS
 (3) Bond, R; Nature 1995, V374, P272 CAPLUS
 (4) Bourne, H; Curr Opin Cell Biol 1997, V9, P134 CAPLUS
 (5) Chen, C; Cell 1999, V98, P305 CAPLUS
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

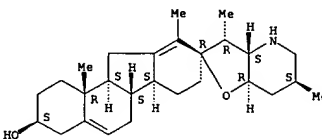
L14 ANSWER 7 OF 14 CAPLUS COPYRIGHT 2001 ACS (Continued)
 3',6',10,11b-tetramethyl-, (2'R,3S,3'R,3'aS,6'S,6aS,6bS,7'aR,11aS,11bR) - (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 4449-51-8 CAPLUS
 CN Spiro[9H-benzo[a]fluorene-9,2' (3'H)-furo[3,2-b]pyridin]-3-ol, 1,2,3,3'a,4,4',5',6,6',6a,6b,7,7',7'a,8,11,11a,11b-octadecahydro-3',6',10,11b-tetramethyl-, (2'R,3S,3'R,3'aS,6'S,6aS,6bS,7'aR,11aS,11bR) - (9CI) (CA INDEX NAME)

Absolute stereochemistry.



09/708,974

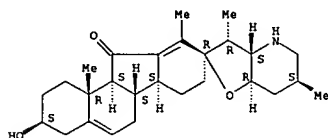
L14 ANSWER 8 OF 14 CAPLUS COPYRIGHT 2001 ACS
 ACCESSION NUMBER: 2000:38438 CAPLUS
 DOCUMENT NUMBER: 132:202865
 TITLE: Effects of Veratrum nigrum alkaloids on central catecholaminergic neurons of renal hypertensive rats
 AUTHOR(S): Li, Hua; Gao, Guang-Yuan; Li, Shu-Yuan
 CORPORATE SOURCE: Department of Pharmacology, Dalian Medical University, Dalian, 116027, Peop. Rep. China
 SOURCE: Acta Pharmacol. Sin. (2000), 21(1), 23-28
 CODEN: APSG55
 PUBLISHER: Science Press
 DOCUMENT TYPE: Journal
 LANGUAGE: English

AB Aims: To study the central hypotensive mechanism of Veratrum nigrum L var ussuriense Nakai alkaloids (VnA) in renal hypertensive rats (RHR).
 Methods: The quant. method of immunocytochem. (ICC) was used to observe and detect the effect of VnA (30 .mu.g .cntdot. kg⁻¹, iv) on activity of central catecholaminergic (CA) neurons of C1, C2, A1, and A5 areas in RHR.
 Results: VnA increased the immunoreactivity (IR) of tyrosine 3-monoxygenase (TH)-immunopos. (IP) neurons of C1, C2, and A5 areas in RHR expl. group compared with RHR control group [pos. units: (1.9+-0.4), (1.18+-0.23), (1.2+-0.4) vs (0.15+-0.22), (0.31+-0.16), (0.69+-0.20), resp.]; IR of TH-IP neurons of C1 and C2 areas in RHR control group was decreased compared with sham-operated group [pos. units: (0.15+-0.22), (0.31+-0.16) vs (1.45+-0.29), (1.36+-0.25), resp.]. Conclusion: VnA increased the activity of central CA neurons in RHR to exert its hypotensive effect.

IT 469-59-0, Jervine
 RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (Veratrum nigrum alkaloids effect on central catecholaminergic neurons in renal hypertension)

RN 469-59-0 CAPLUS
 CN Spiro[9H-benzo[a]fluorene-9,2'-(3'H)-furo[3,2-b]pyridin]-11(1H)-one, 2,3,3',4,4',5',6,6',6a,6b,7,7',7'a,8,11a,11b-hexadecahydro-3-hydroxy-3',6',10,11b-tetramethyl-, (2'R,3S,3'R,3'aS,6'S,6aS,6bS,7'aR,11aS,11bR)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 13
 REFERENCE(S):
 (1) Jin, G; Prog Physiol Sci 1985, V16, P306 CAPLUS
 (2) Li, S; Chin Pharm J 1997, V32, P407 CAPLUS
 (5) Ma, L; Chin Trad Herb Drugs 1998, V29, P105 CAPLUS
 (7) Sun, M; Brain Res 1986, V368, P1 CAPLUS

L14 ANSWER 9 OF 14 CAPLUS COPYRIGHT 2001 ACS
 ACCESSION NUMBER: 1999:672583 CAPLUS
 DOCUMENT NUMBER: 131:267077
 TITLE: Use of steroidal alkaloid derivatives as inhibitors of hedgehog signaling pathways
 INVENTOR(S): Beachy, Philip A.; Cooper, Michael K.; Porter, Jeffrey A.
 PATENT ASSIGNEE(S): Johns Hopkins University School of Medicine, USA
 SOURCE: PCT Int. Appl., 136 pp.
 CODEN: PIXX02
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 3
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9952534	A1	19991021	WO 1999-US7811	19990409
W: AU, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 9934660	A1	19991101	AU 1999-34860	19990409
EP 1067939	A1	20010117	EP 1999-916563	19990409
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
PRIORITY APPLN. INFO.:				
US 1998-81186 P 19980409				
US 1998-81263 P 19980409				
US 1998-90622 A 19980604				
WO 1999-US7811 W 19990409				

OTHER SOURCE(S): MARPAT 131:267077
 AB The present invention makes available assays and reagents inhibiting paracrine and/or autocrine signals produced by a hedgehog protein or aberrant activation of a hedgehog signal transduction pathway, e.g., which involve the use of a steroidal alkaloid or other small mol.

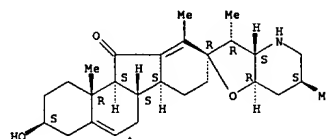
IT 469-59-0, Jervine 4449-51-8, Cyclopamine
 RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (Use of steroidal/alkaloid derivs. as inhibitors of hedgehog signaling pathways in relation to effect on cholesterol biosynthesis)

RN 469-59-0 CAPLUS
 CN Spiro[9H-benzo[a]fluorene-9,2'-(3'H)-furo[3,2-b]pyridin]-11(1H)-one, 2,3,3',4,4',5',6,6',6a,6b,7,7',7'a,8,11a,11b-hexadecahydro-3-hydroxy-3',6',10,11b-tetramethyl-, (2'R,3S,3'R,3'aS,6'S,6aS,6bS,7'aR,11aS,11bR)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

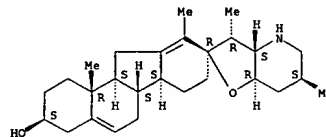
L14 ANSWER 8 OF 14 CAPLUS COPYRIGHT 2001 ACS (Continued)
 (8) Tezuka, Y; J Nat Prod 1998, V61, P1397 CAPLUS
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 9 OF 14 CAPLUS COPYRIGHT 2001 ACS (Continued)



RN 4449-51-8 CAPLUS
 CN Spiro[9H-benzo[a]fluorene-9,2'-(3'H)-furo[3,2-b]pyridin]-3-ol, 1,2,3,3',4,4',5',6,6',6a,6b,7,7',7'a,8,11,11a,11b-octadecahydro-3',6',10,11b-tetramethyl-, (2'R,3S,3'R,3'aS,6'S,6aS,6bS,7'aR,11aS,11bR)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 7
 REFERENCE(S):
 (1) Aruba; EP 0020029 A 1980 CAPLUS
 (2) Cura Nominees Pty Ltd; WO 9110743 A 1991 CAPLUS
 (4) Sanwa Shiyouyaku Kk; JP 04230696 A 1992 CAPLUS
 (5) Schramm, G; US 3673175 A 1972 CAPLUS
 (6) Smithkline Beecham Co; EP 0375349 A 1990 CAPLUS
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 10 OF 14 CAPLUS COPYRIGHT 2001 ACS

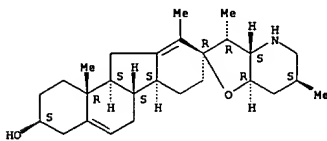
ACCESSION NUMBER: 1999:639750 CAPLUS
 DOCUMENT NUMBER: 131:331613
 TITLE: A looking glass perspective: thalidomide and cycloamine
 AUTHOR(S): Gaffield, William; Incardona, John P.; Kapur, Raj P.; Roslink, Henk
 CORPORATE SOURCE: Western Regional Research Center, ARS, USDA, Albany, CA, 94710, USA
 SOURCE: Cell. Mol. Biol. (Paris) (1999), 45(5), 579-588
 CODEN: CMOBEF; ISSN: 0145-5680
 PUBLISHER: C.M.B. Association
 DOCUMENT TYPE: Journal; General Review
 LANGUAGE: English

AB A review with many refs. Numerous naturally-occurring and synthetic compds. that were discovered initially because of their toxic properties, were later shown to possess biol. activities beneficial to humans that enabled them to serve as templates for the development of useful medicinal agents. A prominent example is thalidomide, a synthetic drug that gained notoriety originally due to its catastrophic teratogenicity in humans. The discovery of thalidomide's efficacy in treating several diseases has resulted in the resurgence of the drug to society's usage. A current example of this phenomenon is the plant teratogen cycloamine (11-deoxojervine), whose deleterious terata-inducing effects were restricted to grazing animals, but whose recently discovered inhibition of Sonic hedgehog signal transduction has provided both the potential to increase our understanding of organogenesis and to serve as a lead compd. in drug development.

IT 4449-51-8, Cycloamine
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (thalidomide and cycloamine)

RN 4449-51-8 CAPLUS
 CN Spiro[9H-benzo[a]fluorene-9,2'(3'H)-furo[3,2-b]pyridin]-3-ol, 1,2,3,3'a,4,4',5',6,6',6a,6b,7,7',7'a,8,11a,11b-octadecahydro-3',6',10,11b-tetramethyl-, (2'R,3S,3'R,3'aS,6'S,6aS,6bS,7'aR,11aS,11bR)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 51
 REFERENCE(S): (1) Beachy, P; Cold Spring Harb Symp quant Biol 1997, V62, P191 CAPLUS
 (2) Berresen, P; Chem Brit 1999, V35, P40 CAPLUS

L14 ANSWER 11 OF 14 CAPLUS COPYRIGHT 2001 ACS

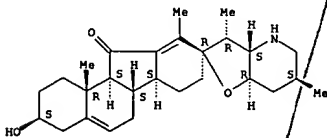
ACCESSION NUMBER: 1999:436553 CAPLUS
 DOCUMENT NUMBER: 131:204460
 TITLE: Steroidal alkaloids and stilbenoids from Veratrum taliense
 AUTHOR(S): Zhou, Chang Xin; Tanaka, Junichi; Cheng, Christopher H. K.; Higa, Tatsuo; Tan, Ren Xiang
 CORPORATE SOURCE: Institute Biotechnology, Department Biological Science Technology, Nanjing Univ., Nanjing, 210093, Peop. Rep. China
 SOURCE: Planta Med. (1999), 65(5), 480-482
 CODEN: PLIMEA; ISSN: 0032-0943
 PUBLISHER: Georg Thieme Verlag
 DOCUMENT TYPE: Journal
 LANGUAGE: English

AB Phytochem. investigation of roots and rhizomes of Veratrum taliense yielded a new and six known steroidal alkaloids as well as a new and one reported stilbene deriv. By a combination of spectral methods (IR, MS, 1H- and 13C-NMR, COSY, HMQC, HMBC, and NOESY), the structure of the new alkaloid was established as 15-angeloylgermine while the known ones were identified as 15-(2-methylbutyryl)germine, jervine, 3-veratrolyzgyadenine, germine, veramiline 3-O-beta-D-glucopyranoside and stenophylline B-3-O-beta-D-glucopyranoside. The new stilbenoid, named veraphenol, was detd. to be 2-(3',5'-dihydroxyphenyl)-6-hydroxybenzofuran, and the known one was shown to be resveratrol. The in vitro enzyme assay indicated that 3-veratrolyzgyadenine and resveratrol are inhibitors of xanthine oxidase. The enzyme inhibitory action of resveratrol, the most active compd. found so far in V. taliense, is dose-dependent with the IC50 value at 30 .mu.M (the IC50 value of allopurinol used as a pos. control in the study is 10 mM).

IT 469-59-0, Jervine
 RL: BOC (Biological occurrence); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)
 (steroidal alkaloids and stilbenoids from Veratrum taliense)

RN 469-59-0 CAPLUS
 CN Spiro[9H-benzo[a]fluorene-9,2'(3'H)-furo[3,2-b]pyridin]-11(1H)-one, 2,3,3',4,4',5',6,6',6a,6b,7,7',7'a,8,11a,11b-hexadecahydro-3-hydroxy-3',6',10,11b-tetramethyl-, (2'R,3S,3'R,3'aS,6'S,6aS,6bS,7'aR,11aS,11bR)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 9
 REFERENCE(S): (2) Han, X; Magn Reson Chem 1991, V29, P100 CAPLUS
 (3) Jayatilake, G; J Nat Prod 1993, V56, P1805 CAPLUS
 (6) Mizuno, M; Phytochemistry 1990, V29, P359 CAPLUS
 (7) Osada, Y; Eur J Pharmacol 1993, V241, P183 CAPLUS
 (8) Oshima, Y; Tetrahedron 1995, V51, P11979 CAPLUS
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 10 OF 14 CAPLUS COPYRIGHT 2001 ACS (Continued)

(3) Blaschke, G; Arznei-Forsch/Drug Res 1979, V29, P1640 CAPLUS
 (6) Chiang, C; Dev Biol 1999, V205, P1 CAPLUS
 (7) Chiang, C; Nature 1996, V383, P407 CAPLUS
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 11 OF 14 CAPLUS COPYRIGHT 2001 ACS (Continued)

09/708,974

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09/708,974

L15 ANSWER 1 OF 6 USPATFULL

ACCESSION NUMBER: 2001:188704 USPATFULL
TITLE: Regulators of the hedgehog pathway, compositions and uses related thereto
INVENTOR(S): Dudek, Henryk, Wellesley, MA, United States
Ji, Benxiu, Sharon, MA, United States

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2001034337	A1	20011025
APPLICATION INFO.:	US 2001-867311	A1	20010529 (9)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1999-417564, filed on 14 Oct 1999, PENDING		

	NUMBER	DATE
PRIORITY INFORMATION:	US 1999-115642	19990113 (60)
	US 1999-119594	19990210 (60)
	US 1999-142124	19990702 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: ROPES & GRAY, ONE INTERNATIONAL PLACE, BOSTON, MA, 02110-2624

NUMBER OF CLAIMS: 38
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 19 Drawing Page(s)
LINE COUNT: 3831

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

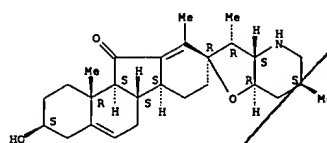
AB The present invention makes available methods and reagents for inhibiting aberrant growth states resulting from hedgehog gain-of-function, ptc loss-of-function or smoothened gain-of-function comprising contacting a cell with a compound, such as a polypeptide or small molecule in an amount sufficient to control the aberrant growth state e.g., to agonize a normal ptc pathway or antagonize smoothened or hedgehog activity. The present invention further makes available methods and reagents for ameliorating to consequences of hedgehog loss-of-function, ptc gain-of-function, or smoothened loss-of-function comprising contacting a cell with a compound, such as a polypeptide or small molecule, in an amount sufficient to ameliorate the in certain embodiments, the subject compounds, e.g., a cAMP analog, adenylate cyclase agonist, or cAMP phosphodiesterase inhibitor, regulate cAMP levels, which in turn modulates activity of the hedgehog pathway.

IT 469-59-0, Jervine 4449-51-8, Cyclopamine
(regulation of the hedgehog pathway and smoothened gain-of-function by gene patched agonists)

RN 469-59-0 USPATFULL
CN Spiro[9H-benzo[a]fluorene-9,2'-(3'H)-furo[3,2-b]pyridin]-11(1H)-one, 1,2,3,3'a,4,4',5',6,6',6a,6b,7,7',7'a,8,11a,11b-octadecahydro-3',6',10,11b-tetramethyl-, (2'R,3S,3'R,3'aS,6'S,6aS,6bS,7'aR,11aS,11bR)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

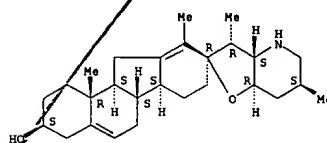
L15 ANSWER 1 OF 6 USPATFULL (Continued)



RN 4449-51-8 USPATFULL

CN Spiro[9H-benzo[a]fluorene-9,2'-(3'H)-furo[3,2-b]pyridin]-3-ol, 1,2,3,3'a,4,4',5',6,6',6a,6b,7,7',7'a,8,11a,11b-octadecahydro-3',6',10,11b-tetramethyl-, (2'R,3S,3'R,3'aS,6'S,6aS,6bS,7'aR,11aS,11bR)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.



L15 ANSWER 2 OF 6 USPATFULL

ACCESSION NUMBER: 2001:165614 USPATFULL
TITLE: Stem cells and their use in transplantation
INVENTOR(S): Moss, Peter Ian, London, Great Britain
Walters, David Martin, London, Great Britain
Pointer, Graham, London, Great Britain

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2001024824	A1	20010927
APPLICATION INFO.:	US 2000-731255	A1	20001206 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 1999-169082	19991206 (60)
	US 2000-215109	20000628 (60)
	US 2000-238880	20001006 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: Palmer & Dodge, LLP, One Beacon Street, Boston, MA, 02108

NUMBER OF CLAIMS: 127
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 18 Drawing Page(s)
LINE COUNT: 2446

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

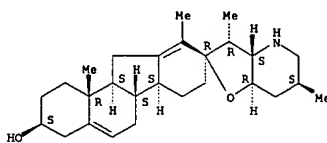
AB Methods and compositions are described for the treatment of type 1 insulin-dependent diabetes mellitus and other conditions using newly identified stem cells that are capable of differentiation into a variety of pancreatic islet cells, including insulin-producing beta cells, as well as hepatocytes. Nestin has been identified as a molecular marker for pancreatic stem cells, while cytokeratin-19 serves as a marker for a distinct class of islet/ductal cells. Methods are described whereby nestin-positive stem cells can be isolated from pancreatic islets and cultured to obtain further stem cells or pseudo-islet like structures. Methods for ex vivo differentiation of the pancreatic stem cells are disclosed. Methods are described whereby pancreatic stem cells can be isolated, expanded, and transplanted into a patient in need thereof, either allogeneically, isogeneically or xenogeneically, to provide replacement for lost or damaged insulin-secreting cells or other cells.

IT 4449-51-8, Cyclopamine
(isolation, culture, and transplantation of nestin-pos. pancreatic stem cells for diabetes treatment)

RN 4449-51-8 USPATFULL
CN Spiro[9H-benzo[a]fluorene-9,2'-(3'H)-furo[3,2-b]pyridin]-3-ol, 1,2,3,3'a,4,4',5',6,6',6a,6b,7,7',7'a,8,11a,11b-octadecahydro-3',6',10,11b-tetramethyl-, (2'R,3S,3'R,3'aS,6'S,6aS,6bS,7'aR,11aS,11bR)-(9CI) (CA INDEX NAME)

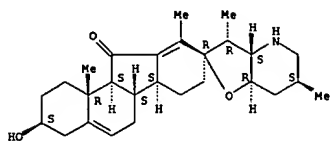
Absolute stereochemistry.

L15 ANSWER 2 OF 6 USPATFULL (Continued)



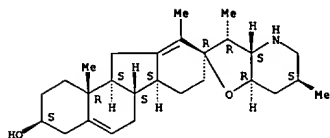
09/708,974

L15 ANSWER 5 OF 6 USPATFULL (Continued)

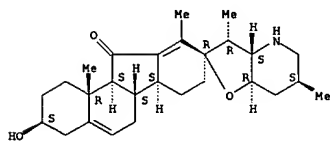


RN 4449-51-8 USPATFULL
CN Spiro[9H-benzo[a]fluorene-9,2'-(3'H)-furo[3,2-b]pyridin]-3-ol, 1,2,3,3'a,4,4',5',6,6',6a,6b,7,7',7'a,8,11,11a,11b-octadecahydro-3',6',10,11b-tetramethyl-, (2'R,3S,3'R,3'aS,6'S,6aS,6bS,7'aR,11aS,11bR)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

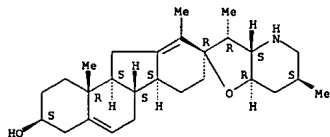


L15 ANSWER 6 OF 6 USPATFULL (Continued)



RN 4449-51-8 USPATFULL
CN Spiro[9H-benzo[a]fluorene-9,2'-(3'H)-furo[3,2-b]pyridin]-3-ol, 1,2,3,3'a,4,4',5',6,6',6a,6b,7,7',7'a,8,11,11a,11b-octadecahydro-3',6',10,11b-tetramethyl-, (2'R,3S,3'R,3'aS,6'S,6aS,6bS,7'aR,11aS,11bR)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.



L15 ANSWER 6 OF 6 USPATFULL

ACCESSION NUMBER: 2000:38195 USPATFULL
TITLE: Method and apparatus for rapid determinations of voltage and current in wires and conductors
INVENTOR(S): Singer, Jerome R., 2917 Avalon Ave., Berkeley, CA, United States 94705
Libove, Joel M., 34 Canyon View Dr., Orinda, CA, United States 94563

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6043641		20000328
APPLICATION INFO.:	US 1998-81263		19980519 (9)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1998-25043, filed on 17 Feb 1998		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Do, Diep N.		
LEGAL REPRESENTATIVE:	Cohen, Howard		
NUMBER OF CLAIMS:	22		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	7 Drawing Figure(s); 3 Drawing Page(s)		
LINE COUNT:	489		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			

AB A device for non-contact, non-invasive measurement of current or power in a wire, cable or conductor includes a small coil having multiple turns with a thin ferromagnetic strip. The coil may be secured to a wand or housing adapted to be used to place the coil in close proximity to the wire, cable or conductor, whereby a voltage is induced in the coil. An amplifier and/or an analog or digital signal processor is utilized to increase sensitivity. A readout indicates the magnitude of the induced voltage, and a scaling device renders the readout display indicative of the current or power in the wire, cable, or conductor. The readout may comprise a digital display, a series of light emitting devices, an oscilloscope, a digital computer display system, or a flashing light emitting device having a flash rate proportional to the magnitude of the voltage. The device may be constructed in a wand or pen-like fashion, with the coil and strip incorporated into the wand. The device may be combined with a voltage sensor to read out relative voltages.

IT 469-59-0, Jervine 4449-51-8, Cyclopanine (use of steroidal alkaloid derivs. as inhibitors of hedgehog signaling pathways in relation to effect on cholesterol biosynthesis)

RN 469-59-0 USPATFULL
CN Spiro[9H-benzo[a]fluorene-9,2'-(3'H)-furo[3,2-b]pyridin]-11(1H)-one, 2,3,3'a,4,4',5',6,6',6a,6b,7,7',7'a,8,11,11a,11b-hexadecahydro-3-hydroxy-3',6',10,11b-tetramethyl-, (2'R,3S,3'R,3'aS,6'S,6aS,6bS,7'aR,11aS,11bR)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

09/708,974

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L17 ANSWER 9 OF 43 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1966:68045 CAPLUS
 DOCUMENT NUMBER: 64:68045
 ORIGINAL REFERENCE NO.: 64:12746e-f
 TITLE: Lycopodium alkaloids. XVII. Mass spectra of annotine and some annotine derivatives
 AUTHOR(S): Maclean, D. B.; Curcumeilli-Rodostamo, M.
 CORPORATE SOURCE: McMaster Univ., Hamilton
 SOURCE: Can. J. Chem. (1966), 44(5), 611-20
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB The mass spectra of annotine and some of its derivs. are recorded and discussed. Fragmentation mechanisms are proposed to account for the formation of the major peaks in the spectra. The compn. of the ions has been verified by measurement of the high-resolution spectra of 4 of the 5 compds. The results lend support to the structure previously proposed for this alkaloid.

L17 ANSWER 10 OF 43 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1965:498716 CAPLUS
 DOCUMENT NUMBER: 63:98716
 ORIGINAL REFERENCE NO.: 63:18209b,18210a-c
 TITLE: C-N or-D-homosteroids and related alkaloids. IV. 11-Deoxojervine, a new alkaloid from Veratrum species
 AUTHOR(S): Masamune, Tadashi; Mori, Yoichi; Takasugi, Mitsuo; Murai, Akio; Ohuchi, Shigeichi; Sato, Norio; Katsui, Nobukatsu
 CORPORATE SOURCE: Hokkaido Univ., Sapporo
 SOURCE: Bull. Chem. Soc. Japan (1965), 38(8), 1374-8
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB cf. CA 62, 14774c. The benzene exts. of alkalized, ground roots of Veratrum album var glandiflorum subjected to sepn. by a modified Jacobs' procedure (cf. Stoll, et al., CA 50, 10748g), gave 11-deoxojervine (I) probably identical with Takaoka's sterol (Nippon Kagaku Zasshi 60, 1090(1939)), veratramine (II), rubijervine, solanidine, and .beta.-sitosterol. I [(alpha).23D -44.2.degree.] m. 236-8.degree. (MeOH) (crystals contained solvent); on drying at the b.p. of xylene, the m.p. changed to 237-8.degree. and the ir spectrum also changed. Acetylation of 101 mg. I with 1 ml. Ac2O and 1 ml. pyridine at 100.degree. gave 84 mg. 3-N-diacyetyl-11-deoxojervine (III). III, recrystd. from aq. alc., m. 168-4.degree. (crystals contained solvent), resolidified and again m. 195-7.degree.; III dried at the b.p. of xylene m. 195-7.degree. and had [(alpha).23D 1.1.degree.]. Attempted redn. of I with LiAlH4 or Li in liquid NH3 gave quant. recovery of 1. I (220 mg.) in 50 ml. MeOH treated with 3.1 ml. concd. H2SO4 and 55 mg. Fe2(SO4)3 in the cold, and the mixt. stirred 5 hrs. at room temp. gave 10 mg. II. WolffKishner redn. of 5 g. jervine according to Barton's procedure (B., et al., CA 49, 12505e) gave 1.1 g. I, and 0.45 g. conjugated diene (IV), m. 211-13.degree. [(alpha).23D, 3.5.degree. when recrystd. from Me2CO or MeOH. Acetylation of 77 mg. IV with Ac2O-pyridine at 100.degree. gave 48 mg. O,O,N-triacetyl deriv., m. 116-18.degree. [(alpha).23D 46.degree. after recrystn. from MeOH-EtOH. On the basis of these facts and of the ir, uv, and N.M.R. spectra, the structure shown for IV is suggested. Jervine-11.beta.-ol (507 mg.) in 500 ml. boiling BuOH treated over 5 hrs. with 36 g. Na, and the mixt. refluxed an adnl. 1.5 hrs., gave 83 mg. IV, which formed the expected triacetyl deriv. (m. 120-1.degree.). Direct transformation of I into II supports the .alpha.-configuration of the H on C-9. The ir, uv, and N.M.R. spectra of many of the compds. are given.

L17 ANSWER 11 OF 43 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1965:498715 CAPLUS
 DOCUMENT NUMBER: 63:98715
 ORIGINAL REFERENCE NO.: 63:18209c-h,18209a-h
 TITLE: Reactions of epoxides. VII. Acid-catalyzed reactions of 13,17a-epoxy- and 17a,18-epoxy-C-nor-D-homoprostean
 AUTHOR(S): Coxon, J. M.; Hartshorn, M. P.; Kirk, D. N.
 CORPORATE SOURCE: Univ. Canterbury, Christchurch, N. Z.
 SOURCE: Tetrahedron (1965), 21(9), 2489-99
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB cf. CA 63, 8447c. C-Nor-D-homo-13(17a)-olefin (I, 500 mg.) in 80 ml. dioxane treated with 0.1M aq. HOBz 40 min. at 20.degree. and the dil. mixt. filtered gave 480 mg. bromohydrin (II, R : Br) (III), m. 130-1.degree. (ligroine), [(alpha).D -36.degree. (C 0.5). III (135 mg.) in 10 ml. alc. kept 18 hrs. at 20.degree. with 150 mg. KOH gave 80 mg. 3.beta.-hydroxy-13.alpha.,17.alpha.-epoxide, m. 215-18.degree., converted by acylation with 1:10 Ac2O-C5H5N in 16 hrs. to 3.beta.-acetoxy-13.alpha.,17a.alpha.-epoxide (IV), m. 194-6.degree. II (R : OH) (V, 3 g.) in 25 ml. C5H5N treated dropwise at 0.degree. with 2.5 ml. SOCl2 and the dil. mixt. extd. with Et2O gave the 13.beta.,17a.beta.-epoxide (VII), m. 187.5-9.0.degree.. Since V is readily obtained by acid-catalyzed hydrolysis of the mixed .alpha.- and .beta.-epoxides IV and VI, formed by epoxidation of I, the tedious chromatographic sepn. to produce IV and VI can be avoided. The ready availability of the tetrasubstituted epoxides led to their inclusion in studies of BF3-catalyzed rearrangements. IV (1 g.) in 100 ml. anhyd. C6H6 treated 30 sec. with 1 ml. BF3-Et2O and did. with Et2O, the washed soln. evapd. and chromatographed on Al2O3, eluted with 8:1 ligroine-C6H6 and the eluate (333 mg.) crystd. from C5H12 and MeOH gave the 8(14), 13(17a)-diene (VII), m. 160-2.degree., [(alpha).D -62.degree. (c 1.17). Elution with 1:1 ligroine-C6H6 gave 300 mg. gum (VIII), [(alpha).D -53.degree. (c 1.33). Further elation with C6H6 gave 190 mg. hecogenin acetate, m. 250-2.degree. (MeOH), [(alpha).D -7.degree., and final elution with Et2O gave the fluorohydrin II (R : F) (IX), m. 176-7.degree. (CGH14), [(alpha).D -62.degree. (c 0.73). VIII (175 g.) treated with 0.5 ml. BzH in 10 ml. alc. contg. 60 mg. KOH 18 hrs. at 20.degree. and the product isolated with Et2O, chromatographed on Al2O3, and elated with C6H6 gave 143 mg. 13-acetyl-C-nor compd. (X) benzylidene deriv., [(alpha).D -38.degree. (c 0.93). Elution with Et2O gave 29 mg. 3.beta.-hydroxy-C-nor-D-homo-17a ketone (XI), [(alpha).D -42.degree. (c 1.12). IX (100 mg.) and 100 mg. KOH heated under reflux 4 hrs. in 25 ml. 90% aq. alc. gave the 3.beta.-hydroxy-13.alpha.,17a.alpha.-oxide, acetylated to IV. IV (800 mg.) and 0.8 ml. BF3-Et2O kept 1 hr. in 80 ml. anhyd. Et2O gave 646 mg. IX. IX (140 mg.) and 0.16 ml. BF3-Et2O kept 22 min. in 16 ml. C6H6 gave material, lambda.D. 251 m.m. (.epsilon. 3200) contg. 14% diene VII. Crystn. from MeOH gave 20 mg. hecogenin acetate, and chromatography of the residues on Al2O3 gave a ketonic fraction consisting mainly of X and unreacted IX. VI (500 mg.) in 50 ml. dry C6H6 treated 3 min. with 0.5 ml. BF3-Et2O and isolation of the steroidal product gave 17a.beta.-hydroxy-17a.alpha.-methyl-DELT7A.8(14)-olefin (XII), m. 170-1.degree. (MeOH), [(alpha).D -94.degree. (c 1.03), deep yellow color with C(NO2)4, dehydrated with SOCl2-C5H5N to VII, thus supporting the trans-13.alpha.,17a.beta.-configuration of XII. The reaction between VI and BF3 in Et2O gave only unreacted VI and the fluorohydrin (XIII), m. 130-7.degree. (decompn.), [(alpha).D -50.degree. (c 0.96), hydrolyzed to the 3.beta.-hydroxy-13.beta.,17a.beta.-epoxide, m. 128-40.degree., [(alpha).D -60.5.degree., acetylated to VI. Earlier work (CA 63, 7081e) 18, (759) (1965) made available two 17a,18-epoxides (XIV, XV) and their behavior with BF3 and with aq. HClO4 was examd. XIV (1.3 g.) and 1.3 ml. BF3-Et2O kept 15 min. in 130 ml. C6H6 and the products

L17 ANSWER 11 OF 43 CAPLUS COPYRIGHT 2001 ACS (Continued)

isolated gave 601 18-aldehyde (XVII), m. 186-8.degree., [(alpha).D -63.degree. (c 0.92), not epimerized by base and thus confirming the .alpha.-configuration of the CHO group. Two unidentified minor products, m. 167-73.degree., [(alpha).D -46.degree. (c 1.22)] and m. 187-90.degree., [(alpha).D -9.degree. (c 1.0)], and XVI were also isolated by chromatography in 210, 210, and 330 mg. ams. Rearrangement of XIV with HClO4 in aq. dioxane 10 min. at 20.degree. gave 831 XVI, together with the 18-hydroxy-13(17a).DELT7A.-olefin (XVIII, R : H, OH) (XVIII), m. 204-6.degree., [(alpha).D -64.degree. (c 1.28), acetylated to XVII (R : H, OAc), m. 159-63.degree., [(alpha).D -48.degree. (c 0.87), reduced in turn by Li-EtNH2 to the endocyclic olefin I. The behavior of XV with BF3 was very unusual. XV (2.3 g.) in 230 ml. C6H6 treated 30 sec. with 2.3 ml. BF3-Et2O and the isolated product adsorbed on 80 g. Al2O3, eluted with 1:1 ligroine-C6H6 and the gum (1.5 g.) crystd. from MeOH gave the cyclic ether (XIX), m. 209-10.degree., [(alpha).D -62.5.degree. (c 0.83). Elution with C6H6 gave the fluorohydrin (XX, R : F) (XXI), m. 206-9.degree., [(alpha).D -64.degree. (c 1.0); 3,18-disacete, [(alpha).D -55.degree. (c 1.18); 3 acetate 18-benzoate, [(alpha).D -52.degree. (c 0.87). XXII (50 mg.), 50 mg. KOH, and 10 ml. aq. alc. refluxed 2 hrs. gave the 3-hydroxy fluorohydrin, m. 258-9.degree. (MeOH), [(alpha).D -63.degree. (c 0.77). The XX residues (398 g.) in 5 ml. dioxane treated 18 hrs. at 20.degree. with 400 mg. 2,3-dichloro-5,6-dicyanobenzoquinone and the mixt. poured into Et2O, the NaOH-washed soln. evapd., and the residue adsorbed on 40 g. Al2O3, eluted with C6H6-Et2O and the eluate (90 mg.) crystd. from MeOH gave the aldehyde (XVII, R : O), m. 197-9.degree., [(alpha).D -41.degree. (c 0.98). Further elution with Et2O gave more XXI (total yield 590 mg.). XV (1.97 g.) in 200 ml. Et2O treated 90 min. with 2 ml. BF3-Et2O and chromatographic sepn. of the products gave XVIII and XIX in 1.17 g. and 769 mg. yields, resp. Treatment of 500 mg. XV in 16 ml. CH2Cl2 and 32 ml. Me2CO with 0.5 ml. 1.5M aq. HClO4 for 10 min. at 20.degree. gave 332 mg. XVIII. Although the results shed no light on the configuration of the 17a,18-diol (XX, R : OH) (XXII), m. 126-8.degree. (CGH14), [(alpha).D -33.degree. (c 1.132), obtained previously (CA 49, 9685h) by the action of OsO4 in C5H5N in C6H6-dioxane on the 17a(18)-olefin. Acetylation of XXII gave the 3.beta.,18-disacete, m. 218-10.degree., [(alpha).D -22.degree. (c 0.90), hydrolyzed by KOH in aq. alc. to XV. The 18-acetate (200 mg.) in 10 ml. pyridine was treated at -40.degree. with 0.2 ml. SOCl2, the reaction mixt. poured into H2O, and the product extd. with pentane and chromatographed over deactivated Al2O3 to give 158 mg. XXIII, oil, [(alpha).D -60.degree. (c 1.54). The 18-aldehyde (XVII) (250 mg.) and 1.5 ml. 60% N2H4.H2O heated 1 hr. at 120.degree. in HOCH2CH2OH and the mixt. heated (W atm.) to 200.degree. with 1 g. KOH and kept 2 hrs. at 200.degree., extd. with EtO and the isolated product acetylated gave the 17a.alpha.-methyl deriv. (XXIV, 17a.alpha.-Me), m. 154-5.degree. (MeOH), [(alpha).D -60.degree. (c 0.85). The 17a(18)-olefin (250 mg.) in 10 ml. AcOH hydrogenated 7 hrs. over 150 mg. 10% Pd-C and the product crystd. from MeOH gave 222 mg. XXIV (17a.beta.-Me), m. 175-6.degree., [(alpha).D -49.5.degree. (c 1.07). The 18-Me signals in XXIV are split into doublets by spin-spin coupling with the 17a proton and appear in a region contg. 19-Me and 27-Me signals. The tabulated .tau. values are to be regarded as tentative.

L17 ANSWER 12 OF 43 CAPLUS COPYRIGHT 2001 ACS
 ACCESSION NUMBER: 1965:439307 CAPLUS
 DOCUMENT NUMBER: 63:39307
 ORIGINAL REFERENCE NO.: 63:7066a-c
 TITLE: Lysergic acids
 INVENTOR(S): Hofmann, Albert; Trowler, Franz
 PATENT ASSIGNEE(S): Sandoz Ltd.
 SOURCE: 3 pp.
 DOCUMENT TYPE: Patent
 LANGUAGE: Unavailable
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CH 386440		19650415	CH	19600819

AB Substituted lysergic acids and dihydrolysergic acids are prepd. by sapon. of the corresponding carboxylic acid amides. Thus, 9.5 g. 1-methyl-dihydroergocryptine in 240 cc. EtOH was refluxed with 240 cc. 4N KOH in 50% MeOH for 20 hrs. to give 1-methyl-dihydro-d-lysergic acid, which was purified by dissolving in 10% methanesulfonic acid, filtering, and neutralizing. The pure product m. 335.degree., [α]_D20D -111 +-. 20.0.degree. (c 0.05, pyridine). Similarly was prep. from 1-methyl-d-lysergic acid D-2-propanolamide a mixt. of 1-methyl-d-lysergic acid and 1-methyl-d-isolysergic acid (I) which was sepd. by soln. in concd. NH₃ soln. and filtration through talc. The ammonium salt of I crystd., and was dissolved in water and treated with AcOH to obtain pure I, m. 215.degree., [α]_D20D 330 +-. 10.degree. (c 0.2, MeOH). From 1-benzyl-dihydroergocryptine was prepd. 1-benzyl-9,10-dihydro-D-lysergic acid, m. 217-22.degree., [α]_D20D -106.degree. (c 0.5, pyridine).

L17 ANSWER 13 OF 43 CAPLUS COPYRIGHT 2001 ACS
 ACCESSION NUMBER: 1965:439306 CAPLUS
 DOCUMENT NUMBER: 63:39306
 ORIGINAL REFERENCE NO.: 63:7066a,7066b
 TITLE: The structure of complex organic molecules by direct x-ray analysis
 AUTHOR(S): Robertson, J. Monteath
 CORPORATE SOURCE: Univ. Glasgow, UK
 SOURCE: Proc. Robert A. Welch Found. Conf. Chem. Res. (1960), 4, 135-56, discussion 157-62
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB A lecture on the structure of limonin, calycanthine, and echitamine.

L17 ANSWER 14 OF 43 CAPLUS COPYRIGHT 2001 ACS
 ACCESSION NUMBER: 1965:91207 CAPLUS
 DOCUMENT NUMBER: 62:91207
 ORIGINAL REFERENCE NO.: 62:16328g-h,16329a-g
 TITLE: Jervine. XV. Hydrogenation of the 13,17a-double bond
 AUTHOR(S): Wintersteiner, O.; Moore, M.
 CORPORATE SOURCE: Squibb Inst. Med. Res., New Brunswick, NJ
 SOURCE: Tetrahedron (1965), 21(4), 779-90
 DOCUMENT TYPE: Journal
 LANGUAGE: English

AB cf. CA 62, 9200f. N-Acetyltetrahydroisojervine (503 mg., CA 58, 2479f) in 5% KOH-MeOH refluxed (N atm.) 1 hr. and the H₂O-washed product recrystd. from MeOH-EtOAc gave 364 mg. α , β -unsatd. ketone (I, R = H) (II), m. 276-9.degree., [α]_D22D -12.7.degree. (c 0.883); triacetate (I, R = Ac) (III), m. 262-4.degree. (EtOAc-C₆H₁₄), [α]_D27D -27.4.degree. (c 0.948). II (149 mg.) in 15 ml. AcOH catalytically hydrogenated with 80 mg. prerduced PtO₂ in 5 hrs. with 1.07 mole equivs. H and the filtered soln. evapd. the residue kept overnight in 50% aq. EtOH, and the cryst. deposit recrystd. from EtOAc gave 12 mg. II, converted to III for identification. The residue from the combined mother liquors acetylated and recrystd. from alc. and from EtOAc-C₆H₁₄ yielded 37 mg. impure C/D trans linked isomer (IV, R = Ac), m. 226-9.degree., [α]_D22D -8.6.degree. (c 1.059, 1:1 MeOH-tetrahydrofuran), showing mutarotation in this solvent contg. 2% KOH from [α]_D21D 12.0 (c 1.075) to -24.2.degree. in 23 hrs. IV contained 70% starting material present as III. Part of IV equilibrated in alk. soln. and the product crystd. from EtOAc gave pure N-acetyl deriv. (V, R = H) (VI), m. 268-70.degree., [α]_D21D -39.degree.. Isolation of VI and the characteristic shape of the mutarotation curve left no doubt as to the identity of the hydrogenation product as IV. Accordingly the side chain in the parent ketone II must be β -oriented and trans addn. to the double bond occurred. The formation of IV as the kinetically favored product was explained by the predominance of stereoelectronic over purely steric control of proton addn. of C-13 in the re-ketonization of an enolic intermediate arising by 1,4-addn. of H to the enone system of II. The observation that the hydrogenation of jervine (VII, R = R' = H, Δ 13-17a) afforded tetrahydrojervine (CA 37, 40727) by cis(α , α)-addn. was confirmed, and the product characterized as diacetyltetrahydrojervine, m. 214-17.degree.. O,N-Diacetyljervine VII (R = R' = Ac, Δ 13-17a, 3.06 g.) in 300 ml. AcOH hydrogenated 22 hrs. with 1.54 g. prerduced Pt catalyst and the residue on evapn. of the filtered soln. taken up in EtOAc, dild. with C₆H₁₄ and the ppt. recrystd. from warm EtOAc, MeOH-EtOAc, and Me₂CO, the product (168 mg., m. 240-4.degree.) chromatographed on Al₂O₃ and eluted in 4% 1:1 Et₂O-MeOH gave the 3,N-diacetate (VIII), m. 240-3.degree., [α]_D28D -27.6.degree. (c 1.148), isomeric with IV, V and the 17-epimeric dihydro deriv. (IX). VIII gave a triacetate (X), [α]_D30D -23.3.degree.. Hydrolysis of VIII by boiling 30 min. in 5% KOH-MeOH gave the N-acetyl deriv. (XI), m. 220-1.degree. (EtOAc), [α]_D31D -27.3.degree. (c 0.952). Acetylation of XI gave an amorphous product with ir spectrum identical with that of X. Mutarotation of VII in 1:1 MeOH-tetrahydrofuran contg. 2% KOH gave initial [α]_D30-10 -35.0.degree. shifting to -38.9.degree. in 5 hrs. initial (c 1.389). The mixt. yielded the N-acetyl deriv. (XI). The mother liquor from VIII evapd. and the residue (2.5 g.) acetylated, chromatographed and the primary eluates rechromatographed gave almost pure triacetyltetrahydroisojervine (XIII), m. 170-2.degree., [α]_D30D 66.3.degree. (c 1.033). Further elution with 1:1 C₆H₆-Et₂O gave IX triacetate, [α]_D28D -14.7.degree. (CHCl₃), showing mutarotation in alk. MeOH-tetrahydrofuran, hydrolyzed in 5% KOH-MeOH to the N-Ac deriv., m. 235-9.degree., [α]_D25D -13.degree. (c 1.192). With O,N-diacetyljervine, the primary event in hydrogenation was the

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 hydrogenolysis of the 17,23- ether linkage and the formation of a free 23-OH group. This may have been accompanied by deconjugation of the enone grouping leading to 3,N-diacetyltetrahydroisojervine, isolated as XIII, or followed by hydrogenation of the double bond and thus leading by trans (13, β ,17a, α)-addn. to the 3,N-diacetate of IX and to the configurationally as yet undefined new stereoisomer VIII. These results were discussed in terms of their dependence on the ease of protonation of the 17,23-ether O and the direction of polarization of the enone system before and after cleavage of the 17-O bond.

L17 ANSWER 15 OF 43 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1965:91206 CAPLUS
DOCUMENT NUMBER: 62:91206
ORIGINAL REFERENCE NO.: 62:14328e-g
TITLE: Nitrogen-containing steroids. X. The conversion of halohydrins to aziridines and oxazolines
AUTHOR(S): Ponsold, Kurt; Groh, Helmut
CORPORATE SOURCE: Univ. Jena, Germany
SOURCE: Chem. Ber. (1965), 98(4), 1009-12
DOCUMENT TYPE: Journal
LANGUAGE: German
AB cf. CA 62, 10476e. 2.alpha.-Bromo-3.alpha.-cholestanol (I) (3.0 g.) in 60 cc. CSHSN treated 48 hrs. at 0.degree. with 2.0 cc. MeSO₂Cl yielded 3.1 g. methanesulfonate (II) of I, leaflets, m. 232-3.degree. (CHCl₃-Me₂CO), [alpha]_D20D 52.degree. (c 2, CHCl₃). II (2.5 g.) in 150 cc. Me₂SO stirred 4 hrs. at 80.degree. with 7.0 g. NaN₃ gave 1.95 g. 2.alpha.-bromo-3.beta.-azidocholestanol (III), m. 84.degree. (MeOH), [alpha]_D20D 10.degree. (c 2, CHCl₃). III (2.0 g.) in 16 cc. C₆H₆ and 1.1 g. Ph₃P refluxed about 0.5 hr. and evapd., and the crude triphenylphosphonium salt dissolved in 15 cc. refluxing AcOH and refluxed 1 hr. with 5 cc. 48% HBr yielded 0.96 g. 2.alpha.-bromo-3.beta.-aminocholestanol-HBr (IV.HBr), m. 285.degree. (EtOH). IV.HBr (0.5 g.) in 50 cc. boiling EtOH with 0.5 g. KOH in a little EtOH yielded 0.25 g. IV, m. 116.degree. (MeOH). III (3.0 g.) in 100 cc. AcOEt hydrogenated 2 hrs. at room temp. over 0.4 g. PtO₂ yielded 2.5 g. IV, m. 112-14.degree. (MeOH), [alpha]_D20D 5.degree. (c 1, CSHSN). IV (0.90 g.), 1 g. KOH, and 10 cc. MeOCH₂CH₂OH refluxed 20 min. yielded 0.55 g. 2.beta.-3.beta.-imincholestanol (V), m. 104-5.degree. V (0.20 g.) in 2 cc. CSHSN treated 1 hr. at room temp. with 2 cc. Ac₂O yielded 0.18 g. N-Ac deriv. of V, m. 134-5.degree. (Me₂CO), [alpha]_D20D 37.degree. (c 1, CHCl₃). IV (0.5 g.), 5 cc. CSHSN, and 5 cc. Ac₂O yielded overnight at room temp. 0.45 g. N-Ac deriv. (VI) of IV, needles, m. 199.degree. (decompn.) (Et₂O), [alpha]_D25D -9.degree. (c 1, CHCl₃). VI (0.50 g.), 1 g. KOH, and 10 cc. MeOCH₂CH₂OH refluxed 15 min. yielded 0.34 g. 2'-methyloxazolino[5',4',2',3']cholestanol (VII), needles, m. 89.degree. (Me₂CO), [alpha]_D25D 52.degree. (c 1, CHCl₃). VII (0.1 g.) in refluxing Et₂O with picric acid in Et₂O gave 0.11 g. picrate, needles, m. 204-5.degree. (Me₂CO), [alpha]_D20D -30.degree. (c 1, CHCl₃). The reaction of the diaxial 2.beta.-bromocholestan-3.alpha.-ol methanesulfonate with NaN₃ yielded not the expected diaxial haloazide but rather an unsatd. azide.

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ACCESSION NUMBER: 1965:82827 CAPLUS
DOCUMENT NUMBER: 62:82827
ORIGINAL REFERENCE NO.: 62:14774e-h,14775a-b
TITLE: C-Nor-D-homosteroids and related alkaloids. III. C-9 Configuration of jervine and related alkaloids
AUTHOR(S): Masamune, Tadashi; Takasugi, Mitsuo; Mori, Yoichi
CORPORATE SOURCE: Hokkaido Univ., Sapporo, Japan
SOURCE: Tetrahedron Letters (1965), (9), 489-95
DOCUMENT TYPE: Journal
LANGUAGE: English
AB cf. CA 61, 702d, 8351d. It was shown that jervine (I, R' = O) (II) and veratrine (III, delta.5) (IV) have the B/C trans configuration. III (no delta.5), m. 191-3.degree., treated with (CH₃CO)₂NHCl, the N-chloro deriv. treated with NaOMe and subsequently hydrolyzed gave an aldehyde, degraded with BUNO₂ and BuONa to an oxime, m. 228-321 hydrolyzed to give a ketone (V), C₂₁H₂₈O₂, m. 169-71.degree., nu. 1667, 1597 cm.⁻¹, lambda. 258 m.m. (epsilon. 15,000), N.M.R. tau. 7.42, 7.56, 9.05, identical with the ketone prepd. from hecogenin by Mitsuhashi and Shibata (CA 61, 13374b). Birch redn. of IV with Li in EtNH₂ in the presence of Me₂CHOH yielded 33% main product (VI), m. 182-4.degree., lambda. 210 m.m. (epsilon. 16,000); triacetyl deriv. m. 144-6.degree., tau. 4.58, 8.47. Catalytic hydrogenation of VI in AcOH over prerduced PtO₂ gave the compds. VII, m. 174-6.degree. Rf 0.41, and VIII, m. 181-3.degree., Rf 0.58 (CA 61, 8351d). Treatment of 11-deoxojervine (IX) with Li and EtNH₂ yielded 2 isomeric substances X, C₂₇H₄₃NO₂, m. 157-9.degree., Rf 0.78, nu. 3300, 1715, 1063, 877, 806 cm.⁻¹, and XI, m. 190-2.degree., [alpha]_D -53.6.degree. (95% alc.), Rf 0.56, v 3400, 1063, 883, 806 cm.⁻¹. Hydrogenation of X gave a good yield of the 5,6-dihydro deriv. (XII), C₂₇H₄₅NO₂, m. 155-7.degree., [alpha]_D -59.4.degree., nu. 3300, 1719, 1032, 878 cm.⁻¹, also produced in good yield by direct hydrogenation of IX. On acetylation XII and XI gave the corresponding triacetyl derivs., m. 157-9.degree., tau. 4.93, 5.17, 5.35, 8.34, 9.28, and m. 188-90.degree., [alpha]_D -10.2.degree., tau. 4.61, 8.47, 9.02. The N.M.R. spectra indicated the presence of a C-18 Me group and suggested the configuration of the C/D ring linkage. Hydrogenation of XI gave mainly VII, m. 172-4.degree. Rf 0.43, nu. 3300, 1041, 855 cm.⁻¹, tau. 8.35, 9.25. Oxidn. of diacetyl jervin-11.beta.-ol with CrO₃-CSH₅N gave diacetyl jervine, indicating that jervin-11.beta.-ol (XIII) has the same configuration at C-9 as II. Birch redn. of XIII gave 5% triol (XIV) and 50% diol (XV). XIV, m. 217-18.degree., Rf 0.15, was also obtained by redn. of 8,9-dihydroisojervine with LiAlH₄. The diol XV, C₂₇H₄₃NO₂, m. 198-9.degree., [alpha]_D -64.9.degree., Rf 0.48, nu. 3400, 1064, 885, 806 cm.⁻¹, gave a triacetyl deriv., m. 188-90.degree., [alpha]_D -12.3.degree., tau. 4.58, 8.47, 9.02, showing cleavage of the ether bond and removal of the 11-OH group. Hydrogenation of XV gave 2 cryst. compds., XIII C₂₇H₄₅NO₂, m. 184-6.degree., Rf 0.50, v 3400, 3300, 1041, 885 cm.⁻¹, and VII, C₂₇H₄₇NO₂, m. 180-2.degree., Rf 0.59, v 3300, 1715, 1039, 878 cm.⁻¹ XVI gave a triacetyl deriv., m. 201-4.degree., showing almost the same N.M.R. spectrum as that of the corresponding deriv. of XV. The spectrum of the triacetyl deriv. of VIII exhibited no sharp absorption near tau. 8.4, suggesting satn. of the C-12, C-13 double bond. The above transformations involved no reaction affecting the C-9 configuration and established the B/C configuration of II, 11-deoxojervine, and IV.

L17 ANSWER 17 OF 43 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1965:82826 CAPLUS
DOCUMENT NUMBER: 62:82826
ORIGINAL REFERENCE NO.: 62:14773h,14774a-c
TITLE: Steroids in the adsorbed state. I. Adsorption of certain 5.alpha.- and 5.beta.-cholanic and etianic acid derivatives on activated alumina
AUTHOR(S): Hodosan, Francis; Pop-Gocan, Alexandra
CORPORATE SOURCE: Acad. R.P.R., Cluj
SOURCE: Studii Cercetari Chim. Bucharest (1964), 13(8-9), 559-66
DOCUMENT TYPE: Journal
LANGUAGE: Romanian
AB Steroids of medium and low polarity of the 5.alpha.- and 5.beta.-cholan series possessing functional groups which can participate in substitution, elimination, hydrolysis, redn., and oxidn. reactions, were adsorbed on a thin layer of Al₂O₃ and subjected to the action of several reagents. The following were screened: methyl 3.alpha.-acetoxo-, methyl-3.beta.-acetoxo-, methyl 6.alpha.-acetoxo-, methyl 12.alpha.-acetoxo-, methyl 3.alpha.-diacetoxo-, methyl 3.alpha.-,12.alpha.-diacetoxo-, methyl 3.alpha.-tosyloxy-, methyl 6.alpha.-tosyloxy-, methyl 12.alpha.-tosyloxy-, methyl 3.alpha.-,6.alpha.-ditosyloxy-, methyl-3-oxo-, methyl 6-oxo-, methyl 12-oxo-, methyl 3,6-dioxo-, methyl 3,12-dioxo-5.alpha.- and -----5.beta.-cholanates, resp. and also methyl 3.beta.-acetoxo-5.alpha.- and -5.beta.-etianates. Plots of R_m values of the monosubstituted methyl 5.beta.-cholanates against the position of the substituents, showed that the substituents in the 3.alpha. and 6.alpha. positions affected the adsorptivity as follows: O > OTs > OAc > Co₂Me, independent of the adsorbent activity, in contrast with those at C-12, which show some inversion. The oscillation of R_m values of 12.alpha. substituted compds. around those of 3.alpha. and 6.alpha. derivs. favored the conception that the migration of a substance on the adsorbent surface is detd. by a rel. large no. of antagonistic effects. The 6.alpha.-substituted compds. were more strongly absorbed than the corresponding 3.alpha. compds. The skeleton-adsorbent-interaction effect proposed as an explanation was illustrated by means of the R_m values of the 3.alpha.- and 3.beta.-substituted methyl 5.beta.-cholanates. Also considered were the homology effect, and the steric effect which acted in opposition to the former two effects.

L17 ANSWER 18 OF 43 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1965:82825 CAPLUS
DOCUMENT NUMBER: 62:82825
ORIGINAL REFERENCE NO.: 62:14773h,14774a-c
TITLE: Steroids in the adsorbed state. I. Adsorption of certain 5.alpha.- and 5.beta.-cholanic and etianic acid derivatives on activated alumina
AUTHOR(S): Hodosan, Francis; Pop-Gocan, Alexandra
CORPORATE SOURCE: Acad. R.P.R., Cluj
SOURCE: Rev. Roumaine Chim. (1964), 9(8-9), 523-30
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Steroids of medium and low polarity of the 5.alpha.- and 5.beta.-cholan series possessing functional groups which can participate in substitution, elimination, hydrolysis, redn., and oxidn. reactions, were adsorbed on a thin layer of Al₂O₃ and subjected to the action of several reagents. The following were screened: methyl 3.alpha.-acetoxo-, methyl-3.beta.-acetoxo-, methyl 6.alpha.-acetoxo-, methyl 12.alpha.-acetoxo-, methyl 3.alpha.-,6.alpha.-diacetoxo-, methyl 3.alpha.-,12.alpha.-diacetoxo-, methyl 3.alpha.-tosyloxy-, methyl 6.alpha.-tosyloxy-, methyl 12.alpha.-tosyloxy-, methyl 3.alpha.-,6.alpha.-ditosyloxy-, methyl-3-oxo-, methyl 6-oxo-, methyl 12-oxo-, methyl 3,6-dioxo-, methyl 3,12-dioxo-5.alpha.- and -----5.beta.-cholanates, resp. and also methyl 3.beta.-acetoxo-5.alpha.- and -5.beta.-etianates. Plots of R_m values of the monosubstituted methyl 5.beta.-cholanates against the position of the substituents, showed that the substituents in the 3.alpha. and 6.alpha. positions affected the adsorptivity as follows: O > OTs > OAc > Co₂Me, independent of the adsorbent activity, in contrast with those at C-12, which show some inversion. The oscillation of R_m values of 12.alpha. substituted compds. around those of 3.alpha. and 6.alpha. derivs. favored the conception that the migration of a substance on the adsorbent surface is detd. by a rel. large no. of antagonistic effects. The 6.alpha.-substituted compds. were more strongly absorbed than the corresponding 3.alpha. compds. The skeleton-adsorbent-interaction effect proposed as an explanation was illustrated by means of the R_m values of the 3.alpha.- and 3.beta.-substituted methyl 5.beta.-cholanates. Also considered were the homology effect, and the steric effect which acted in opposition to the former two effects.

L17 ANSWER 19 OF 43 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1965:720 CAPLUS
 DOCUMENT NUMBER: 62:720
 ORIGINAL REFERENCE NO.: 62:110d-e
 TITLE: Mass-spectrometric study of carbohydrates: methyl ethers of disaccharides
 AUTHOR(S): Chizhov, O. S.; Polyakova, L. A.; Kochetkov, N. K.
 SOURCE: Dokl. Akad. Nauk SSSR (1964), 158(3), 685-8
 DOCUMENT TYPE: Journal
 LANGUAGE: Russian
 AB Mass spectra were obtained of .alpha.-Me hepta-O-methyl-gentiobioside (I), .alpha.,.beta.-Me hepta-O-methylmelibioside (II), .alpha.,.beta.-Me hepta-O-methylcellobioside (III), .alpha.,.beta.-Me hepta-O-methylmaltoside (IV), .alpha.,.beta.-Me hepta-O-methylsaccharoside (V), and .alpha.-Me hepta-O-methylsophoroside (VI). The more conspicuous differences between the mass spectra arise from the different positions of the O bridge, which is 1.fwdarv. 6 in I and II, 1.fwdarv. 4 in III, IV, and V, and 1.fwdarv. 2 in VI. Peaks at m/e = 380 and 305 are observed in the spectra of III, IV, V, and VI only, m/e = 380 being ascribed to loss of C atoms 5 and 6 together as methoxymethanol from ring B, and m/e = 305 to the further loss of (MeO)2CH.bul. A peak at m/e = 161 is much stronger in III, IV, and V than in VI, and is attributed to loss of the ring A radical from the m/e = 380 fragment. Peaks at m/e = 279 and 353 are thought to be analogous to the peaks at m/e = 75 and 149 in methylated glucose; m/e = 279 probably arises from cleavage in ring A, and m/e = 353, which occurs only in I and II, from ring B cleavage.

L17 ANSWER 20 OF 43 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1965:719 CAPLUS
 DOCUMENT NUMBER: 62:719
 ORIGINAL REFERENCE NO.: 62:110b-d
 TITLE: Highly sensitive photoresistors and photocells of roasted CdS and some of their reversible aging processes
 AUTHOR(S): Kynev, St.; Stoyanov, V.; Shekerdzhiiski, V.
 CORPORATE SOURCE: Phys. Inst., Sofia, Bulg.
 SOURCE: Acta Phys. Polon. (1964), 25(3), 313-21
 DOCUMENT TYPE: Journal
 LANGUAGE: Russian
 AB A method of simply and quickly prep. CdS tablets suitable for the production of photoresistors makes use of any CdS or CdS contg. CdSO4 that can be had from Soviet industry. The prep. involves compression of the CdS power at 100 kg./sq. cm. followed by heating in an Ar atm. at 850-900.degree. for 1/2 hr. The photosensitivity of the material is increased by Cu addn. The high-resistance photosensitive sinter obtained is used to prep. by known methods photoresistors having improved mech. stability. On exposure to light these photoresistances age, with photocurrents decreasing 5-30% for the first 100-200 working hrs., and no change thereafter (measured at 2000 hrs.). Heating an already aged photoresistance some 10 sec. restores it to its initial state, and it can be repeated 7-8 times. The theory of the reversible aging is discussed. The photoresistors capable of prep. by methods described can be used in automatic control and measuring devices and as a result of their feeding and intensifying ability they can be used as photomultipliers. Some properties of the photoresistors are given.

L17 ANSWER 21 OF 43 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1964:104373 CAPLUS
 DOCUMENT NUMBER: 61:4373
 ORIGINAL REFERENCE NO.: 61:702d-g
 TITLE: C-Nor-D-homosteroids and related alkaloids. II. A new alkaloid from Veratrum species, 11-deoxojervine
 AUTHOR(S): Masamune, Tadashi; Mori, Yoichi; Takasugi, Mitsuo; Mural, Akira
 CORPORATE SOURCE: Hokkaido Univ., Sapporo, Japan
 SOURCE: Tetrahedron Letters (1964), (15-16), 913-17
 DOCUMENT TYPE: Journal
 LANGUAGE: Unavailable
 AB cf. CA 58, 11437c. The ground roots of V. album var grandiflorum gave 0.08% veratramine and 0.3% new alkaloid (Ia) (R = H2, R1 = H) (I), but no jervine (Ia) (R = O, R1 = H) (II). I m. 237-8.degree., [.alpha.]D -33.2.degree. (EtOH); O,N-diacetate m. 163-4.degree. and 195-7.degree., [.alpha.]D 1.1.degree.. I was recovered on redn. with LiAlH4 or Li in liquid NH3. Catalytic redn. of jervine-11.beta.ol (Ia) (R = .beta.-OH, H, R1 = H) (III) in HOAc in the presence of Pt gave the 5,6-dihydro deriv. of Ia (R = .beta.-OH, H, R1 = Ac) (IV), m. 124-7.degree. and 189-91.degree.; O,O,N-triacetate m. 184-6.degree.. Birch redn. of III in MeOH gave V, m. 148-50.degree.. On refluxing with HCl in MeOH, III gave 35% veratramine. The CO group of II did not form an oxime. Clemmensen redn. of 12,13-dihydrojervine was unsuccessful. Wolff-Kishner redn. of II gave VI, m. 211-13.degree., [.alpha.]D +3.5.degree., and m. 236-8.degree.. VI gave an O,O,N-tri-acetate, m. 116-18.degree., [.alpha.], 46.degree.. Ultraviolet, infrared, and nuclear magnetic resonance data were used to confirm the structure of the compds.

L17 ANSWER 22 OF 43 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1964:91192 CAPLUS
 DOCUMENT NUMBER: 60:91192
 ORIGINAL REFERENCE NO.: 60:15967c-e
 TITLE: A polymer-homologous series of methyl .beta.-D-glycosides from cellulose
 AUTHOR(S): Wolfrom, M. L.; Haq, S.
 CORPORATE SOURCE: Ohio State Univ., Columbus
 SOURCE: Tappi (1964), 47(4), 183-5
 DOCUMENT TYPE: Journal
 LANGUAGE: Unavailable
 AB cf. CA 51, 1601h. Polymer homologs of Me .beta.-D-glycosides with a degree of polymerization of 2, 3, 4, and 5 from cellulose were treated with Ac2O contg. 40% HBr 1-1.5 hrs. at 25.degree. and gave the corresponding bromides (I) in 56% yield, m. 182-3.degree.; 78%, m. 183-5.degree.; 72%, amorphous; 78% amorphous, resp. I were shaken in a 1:1 mixt. of CHCl3-MeOH with Drierite and Ag2O with the exclusion of light to give the following O-acetyloligosaccharides (II): Me hepta-O-acetyl-.beta.-cellobioside (III), 68%, m. 186-7.degree., [.alpha.]20D -26.9.degree. (c 5.8, all in CHCl3); Me deca-O-acetyl-.beta.-cellotrioside, 72%, m. 198-9.degree., [.alpha.]20D -25.9.degree. (c 4.7); Me trideca-O-acetyl-.beta.-cellotetraoside, 49%, m. 215-16.degree., [.alpha.]20D -25.2.degree. (c 4.5); Me undeca-O-acetyl-.beta.-cellopentaoside, 65%, m. 224-6.degree., [.alpha.]20D -24.2.degree. (c 5.6). II were refluxed 6 hrs. in MeOH with BuNH2 to give Me .beta.-cellobioside (IV), 84%, m. 192-3.degree., [.alpha.]20D -19.7.degree. (c 3.3, all in H2O); Me .beta.-cellotrioside, 93%, m. 240-2.degree., [.alpha.]20D -13.7.degree. (c 3.1); Me .beta.-cellotetraoside, 94%, m. 251-3.degree. (decompn.), [.alpha.]20D -10.degree. (c 1.4); Me .beta.-cellopentaoside, 94.5%, m. 255-8.degree. (decompn.), [.alpha.]20D -8.1.degree. (c 1.4). The x-ray powder diffraction bands and the rotatory dispersion of III and IV were detd. The optical rotatory powers of both series followed the Freudenberg relationship.

L17 ANSWER 23 OF 43 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1964:91191 CAPLUS
 DOCUMENT NUMBER: 60:91191
 ORIGINAL REFERENCE NO.: 60:15967b-c
 TITLE: The applicability of Klyne's rule to the calculation of molecular rotation of alkaloid glycosides and other carbohydrates
 AUTHOR(S): Stanek, J.
 CORPORATE SOURCE: Karlova Univ., Prague
 SOURCE: Tagungsber., Deut. Akad. Landwirtschaftswiss. Berlin (1961), No. 27, 117-30
 DOCUMENT TYPE: Journal
 LANGUAGE: Unavailable

AB Klyne's rule for the calcn. of mol. rotation was successfully applied to the following substances: the Veratrum alkaloid glycosides veratrosine, isorubijervosine, pseudojervine; the nonreducing oligosaccharides gentianose, raffinose, melezitose, their undecaacetyl derivs., and undecamethylmelezitose; Me solatrioside, Me chacotrioside, and Me lycotetraoside. Values calcd. for the Solanum alkaloid monosides did not agree well with exptl. values. 95 references.

L17 ANSWER 24 OF 43 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1964:91113 CAPLUS
 DOCUMENT NUMBER: 60:91113
 ORIGINAL REFERENCE NO.: 60:15944d-g
 TITLE: The Veratrum alkaloids
 AUTHOR(S): Poethke, W.; Kuntze, M.; Kerstan, W.
 CORPORATE SOURCE: Friedrich-Schiller Univ., Jena, Germany
 SOURCE: Tagungsber., Deut. Akad. Landwirtschaftswiss. Berlin (1961), No. 27, 91-9
 DOCUMENT TYPE: Journal
 LANGUAGE: Unavailable

AB Esters of rubijervine, so far not found in the Veratrum species, were prepd., and the amorphous alkaloids of Veratrum album were chromatographed to give rubijervine (I), isorubijervine (II), jervine (III), and 3 unknown alkalines. I and III were each treated with the desired acid chloride in pyridine; warming of I must be avoided. Thus prepd. were I diacetate (IV), m. 161-3.degree. (decompn.) (alc.); I dipropionate, m. 217-18.degree. (decompn.) (acetone); I bis(di-.alpha.-methylbutyrate) (V), m. 195-6.degree. (decompn.) (acetone); dipropionyljervine, m. 121.degree. (decompn.) (dil. MeOH); and bis(di-.alpha.-methylbutyryl)jervine, m. 174-6.degree. (decompn.) (dil. MeOH). I, IV, and esp. V depressed the blood pressure of cats at doses of 0.03 mg./kg. Alk. hydrolysis of the amorphous alkaloids obtained from Veratrum album gave besides germine another amorphous fraction, which was paper-chromatographed; the following solvent systems gave partial sepsn., showing the presence of I, II, III, and 2 other alkalines designated A and C: 90:10 CHCl₃-dioxane; 75:25 CHCl₃-MeCOEt, 90:10 or 80:20 CHCl₃-C₆H₆, and 25:75 CH₂CHCl-EtOAc, all mixts. being satd. with HCONH₂. Germinine, isogerminine, protoverine, zygadenine, and an alkaloid designated Alkamine B did not travel with any of these solvent systems but could be sepd. by means of 40:50:10 BuOH-H₂O-AcOH. Crystn. of the hydrolyzed amorphous fraction from acetone and chromatography on an acidic Al₂O₃ column with CHCl₃ as eluent to which increasing quantities of EtOH were added yielded a mixt. of I and II (sepd. by fractional crystn. from EtOH into I, m. 23942.degree., and II, needles m. 216-18.degree. and prisms m. 237-8.degree.), III (m. 241-3.degree.), amorphous A, and cryst. B, m. 259-62.degree. (acetone). Chromatography on HCONH₂-treated silica gel with CHCl₃ + 1% EtOH as eluent gave good sepsn. and yielded cryst. A, C₂₇H₄₃O₄N, m. 115-18.degree., crystd. by slow evapn. of its acetone-ether soln., as well as C, m. 215-17.degree. (acetone-ether).

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ACCESSION NUMBER: 1964:91112 CAPLUS
 DOCUMENT NUMBER: 60:91112
 ORIGINAL REFERENCE NO.: 60:15944c-d
 TITLE: Degradation of solasodine
 AUTHOR(S): Magyar, G.
 CORPORATE SOURCE: Forschungsinst. Pharm. Ind., Budapest, Hung.
 SOURCE: Tagungsber., Deut. Akad. Landwirtschaftswiss. Berlin (1961), No. 27, 225-7
 DOCUMENT TYPE: Journal
 LANGUAGE: Unavailable

AB Acetylation of solasodine (I) with Ac₂O in the presence of C₅H₅N, quinoline, collidine, NET₃, alkali carbonates, alk. earth carbonates, Na₃PO₄, Na, Mg, Fe, and some ion exchange resins was investigated. Optimum results were obtained with NET₃ in the presence of an inert solvent as PhMe. The product was O,N-diacetylsolasodine (II). The conversion of II into the pseudoacetamido deriv. followed by oxidn. was effected by known methods. Subsequent pyrolytic cleavage of the 16-acyloxy side chain gave an overall yield of 58% 5,16-pregnadien-3B-ol-20-one acetate. As in the degradation of I, pregna-5,16-dien-3.beta.-ol-20one propionate and butyrate were obtained from I and 5.beta.-pregni6-en-3.beta.-ol-20-one acetate and propionate from tomatidine.

L17 ANSWER 26 OF 43 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1964:75519 CAPLUS
 DOCUMENT NUMBER: 60:75519
 ORIGINAL REFERENCE NO.: 60:13280h,13281a-c
 TITLE: Study on alkaloids of Petilium eduardi
 AUTHOR(S): Shakirov, R.; Nuriddinov, R. N.; Yunusov, S. Yu.
 CORPORATE SOURCE: Inst. Chem. Vegetable Comps., Tashkent
 SOURCE: Dokl. Akad. Nauk Uz. SSR (1963), 20 (9), 23-6
 DOCUMENT TYPE: Journal
 LANGUAGE: Unavailable

AB From P. eduardi, imperiline (I) [ibid. 1961(4), 33: CA 57, 15165h], pelmimine (II) (Chou, CA 41, 7677h), edpetilidine (III), edpetiline (IV), and alkaloids m. 247-51.degree. (V), m. 269-71.degree. (VI), and m. 228-31.degree. (VII), were isolated. The alkaloids (1.1-1.32t) were extd. from dry above-ground parts (alkalinized with aq. NH₃) with CHCl₃. By recrystn. of the Et₂O-sol. alkaloids from Me₂CO, I and III [C₂₇H₄₅NO₂, m. 227-8.degree., [.alpha.]D -48.19.degree. (pyridine); hydrochloride m. 283-5.degree.; hydrobromide m. 270-2.degree.; hydriodide m. 262-3.degree.; methiodide m. 292-4.degree.; nitrate m. 225.degree. (decompn.)] were isolated. In III an OH group and 3 C-Me groups were present; N-Me was not found. Mother liquors were treated with 5% H₂SO₄ and, after alkalization with NH₃, extd. with petr. ether and then with Et₂O. From the petr. ether-sol. portion V, and from the Et₂O-portion V, VI, VII, a little addnl. I, and II [m. 267-9.degree. (MeOH), [.alpha.]D -44.62.degree. (EtOH); hydrochloride m. 250-2.degree.; hydrobromide m. 257-9.degree.; hydriodide m. 254-6.degree.; nitrate m. 230-2.degree.; oxime m. 190-1.degree.; hydrochloride of oxime m. 254.degree.; acetyl deriv. m. 238-40.degree.; N-Me deriv. m. 238-40.degree.] were obtained. II contained 4 C-Me groups. From the CHCl₃-sol. portion of alkaloids IV [m. 272-6.degree. (MeOH), [.alpha.]D -57.89.degree. (MeOH); hydrochloride m. 220.degree.; hydrobromide m. 226.degree.; hydriodide m. 228.degree.; oxime m. 228-9.degree. (decompn.)] was obtained; tetraacetyl deriv. m. 224-6.degree.. Hydrolysis of IV with 10% H₂SO₄ gave I and D-glucose. Cf. CA 58, 10257e IV is the .beta.-D-glucoside of I.

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ACCESSION NUMBER: 1960:91847 CAPLUS
 DOCUMENT NUMBER: 54:91847
 ORIGINAL REFERENCE NO.: 54:17443g-1, 17444a-e
 TITLE: The general importance of the reaction of alkaloids of the secondary amine type with formaldehyde
 AUTHOR(S): Auterhoff, H.; Moll, F.
 CORPORATE SOURCE: Tech. Hochschule, Braunschweig, Germany
 SOURCE: Arch. Pharm. (1960), 293, 132-41
 DOCUMENT TYPE: Journal
 LANGUAGE: Unavailable

AB The reaction of alkaloids of the secondary amine types with formaldehyde was investigated and it was assumed that this reaction was important in the biosynthesis of alkaloids. The nucleophilic strength of the alkaloids was detd. by the method of Brady and Cropper (CA 45, 8971e) with 2,4-(OZN)2CGH3Cl(I). Reaction velocity consts. of the reaction with I (k2 .times. 10-4) and consts. of the alk. disson. KB were detd. Cephaeline (II) (0.254 g.) treated in 50 ml. abs. Et2O with 0.10 ml. 35% HCHO 4 hrs. at room temp., and the solvent evapd., yielded 0.279 g. N-(hydroxymethyl)cephaeline (III), m. 138-142.degree., [.alpha.]20D -20.degree. (c 2, CHCl3), Rf (Partridge mixt.) 0.53. The paper chromatography showed uniformity of III, II and 35% HCHO reacted in NaOH soln. to give a mixt. of several products; di-cephaelinomethane was not obtained. Conine (IV) (contg. small ants. of .gamma.-coniceine) (0.304 g.) refluxed in 30 ml. Et2O with 0.2 ml. 35% HCHO and 0.5 g. K2CO3 30 min., yielded after evapn. of the solvent 0.270 g. N-(hydroxymethyl)conine(V), yellow oil, n20D 1.4779, [.alpha.]20D 55.degree. (c 5.5). IV (0.272 g.) was heated with 0.032 g. paraformaldehyde and 5 mg. K2CO3 (VI) in a sealed tube 20 min. with shaking on a water bath; filtration and evapn. of Et2O yielded 0.185 g. di-coninomethane, oil, n20D 1.4852, [.alpha.]20D 49.degree., Rf 0.74. Conhydrine (VII) (0.5 g.) refluxed in 30 ml. Et2O with 0.60 ml. 35% HCHO and 1 g. VI 30 min., and the soln. evapd. after filtration yielded 0.564 g. N-(hydroxymethyl)conhydrine, yellow oil, n20D 1.4672, [.alpha.]20D 132.degree. (CHCl3), [.alpha.]20D 46.degree. (alc.), [.alpha.]20D 106.degree. (alc., after 3 days), Rf 0.64. The prepn. of di-conhydrinomethane failed. Cytisine (VIII) (0.159 g.) treated 4 hrs. at room temp. with 0.075 g. 35% HCHO yielded after filtration and evapn. 0.173 g. N-(hydroxymethyl)cytisine m. 110-14.degree.. VIII (0.30 g.) treated at room temp. in 3 ml. abs. alc. with 0.147 g. 35% HCHO and 0.2 g. Ca(OH)2 12 hrs., 30 ml. Et2O and 0.1 g. VI added, and the mixt. filtered, yielded dicytisinomethane, m. 220-1.degree.. Jervine (50 mg.) in 80 ml. abs. Et2O and 0.10 ml. 35% HCHO treated 15 min. at 40.degree. yielded 54 mg. N-(hydroxymethyl)jervine, m. 168-70.degree. (decompn.). The prepn. of hydroxymethyl compds. of bornylisobornylamine and diisobornylamine failed. k2 .times. 10-4 and KB, resp., were detd. for the following compds.: piperidine, 175, 1.6 .times. 10-3(25.degree.); morpholine, 44, -, NHEt2, 2.2, 9.6 .times. 10-3(25.degree.); cephaeline, 2.9, -, emetine, 1.5, 2.3 .times. 10-7 (secondary N) (5.degree.) and 1.7 .times. 10-6 (tertiary N); conine, 0.12, 1.3 .times. 10-3(25.degree.); conhydrine, 0.06; 2 .times. 10-4(18.degree.); jervine, about 0.04, -, diisobornylamine, about 0.002, -, theophylline, about 0.004, 1.9 .times. 10-14(25.degree.); theobromine, about 0.004, 1.3 .times. 10-14(18.degree.); yohimbine, about 0.002, 10-11 (secondary N) (23.degree.), and 2.8 .times. 10-7 (tertiary N). The following alkaloids were chromatographed on Partridge mixt. Detection was carried out with Dragendorff reagent (a), 0.2% ninhydrin in BuOH(b) and heating at 110.degree. or 1% sodium nitroprusside(c) and after treating with 10% NH4OH. The following data were obtained: IV, Rf 0.72,

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red-brown(a), violet(b); Rf 0.72, red-brown(a); .gamma.-coniceine, Rf 0.61, red-violet(a), red(c); VII, Rf 0.62, yellowish(a), violet(b). The influence of basicity and steric effects on the reactivity of the named alkaloids were discussed.

L17 ANSWER 32 OF 43 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1960:91846 CAPLUS
 DOCUMENT NUMBER: 54:91846
 ORIGINAL REFERENCE NO.: 54:17443g-9
 TITLE: Synthesis of some quaternary granatanol esters of pharmacological activity
 AUTHOR(S): Matkovics, B.
 CORPORATE SOURCE: Univ. Szeged, Hung.
 SOURCE: Acta Univ. Szegediensis Acta Phys. et Chem. (1959), 5(No. 1-2), 47-52
 DOCUMENT TYPE: Journal
 LANGUAGE: English

AB Pseudopelletierine was reduced to 3.beta.-granatanol (I), m. 99-100.degree. (picrate m. 264-5.degree.), by the method of Ciamician and Silber [Ber. 25, 1062(1892)] and to 3.alpha.-granatanol (II), hygroscopic (picrate 275-6.degree. (MeOH)), by the method of Alder and Dortmann (CA 49, 3984h). The granatanol obtained was extd. from benzene, the soln. dried over MgSO4, evapd. and distd. under reduced pressure. Recrystn. from a mixt. 2:4 anhyd. benzene-pet. ether gave a very pure alc. O-Acetyl-3.beta.-granatanol (III) b.p. 135-50.degree. (picrate m. 201.degree.), and O-acetyl-3.alpha.-granatanol (IV), b.p. 172-90.degree. (picrate m. 204.degree.), were prepd. by distn. of the corresponding alc. with glacial HOAc under reduced pressure. The following quaternary derivs. were also prepd.: N,N-di-Me deriv. of IV, m. 329.degree.; N-Me, N-Et deriv. of IV, m. 337.5.degree.; N-Me, N-Pr deriv. of IV, m. 240.degree.; N,N-di-Me deriv. of III, m. 331.degree.; N-Me, N-Et deriv. of III, m. 289.5.degree.; N-Me, N-Pr deriv. of III, m. 290.degree..

L17 ANSWER 33 OF 43 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1960:64687 CAPLUS
 DOCUMENT NUMBER: 54:64687
 ORIGINAL REFERENCE NO.: 54:12490d-e
 TITLE: Oscillopolarographic characteristic of veratrum alkaloids
 AUTHOR(S): Molnar, Ladislav; Molnarova, Klara
 CORPORATE SOURCE: Inst. Chem., Bratislava, Czech.
 SOURCE: Acta Polon. Pharm. (1960), 17, 1-6
 DOCUMENT TYPE: Journal
 LANGUAGE: English

AB The oscillograms of jervine, pseudojervine, veratridine, protoveratrine A and B, germerine, germerine, cevine, protocevine, rubijervine, and isorubijervine are reproduced and discussed. Sufficient differentiation enables particular compds. to be identified and the sapon. rate of the esters detd. All detns. were made in 1-2N NaOH, LiOH, or LiCl.

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ACCESSION NUMBER: 1960:64686 CAPLUS
DOCUMENT NUMBER: 54:64686
ORIGINAL REFERENCE NO.: 54:12490c-d
TITLE: Determination of solanum alkaloids
AUTHOR(S): Rozsa, Pal
SOURCE: Gyogyyszeresz (1955), 10, 6-8
From: C.Z. 1958, 4569.
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable

AB Tropic acid (I) was detd. colorimetrically in I-contg. solanum alkaloids with p-dimethylaminobenzaldehyde in 50% H₂SO₄. For purification of the extd. soln., active charcoal was used. The soln. was made alk. with NH₃ and extd. with CHCl₃. The alkaloids can be extd. from the CHCl₃ with dil. acid. The alkaloid content of atropine tablets and injections, as well as leaves and galenical preps. was detd.

L17 ANSWER 35 OF 43 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1958:89905 CAPLUS
DOCUMENT NUMBER: 52:89905
ORIGINAL REFERENCE NO.: 52:15833e-g
TITLE: Oscillopolarographic characterization of veratrum alkaloids
AUTHOR(S): Molnar, L.; Molnarova, K.
CORPORATE SOURCE: Chem. ustav, Slovenska akad. vied, Bratislava, Czech.
SOURCE: Chem. zvesti (1958), 12, 287-303
DOCUMENT TYPE: Journal
LANGUAGE: German

AB An oscillopolarographic method (I) for the detn. of Veratrum alkaloids (glucoalkaloids, esters, and alkamines) (II) in various electrolytes on current and drop electrode and on the 1st curve is described. Jervine, rubijervine, and isorubijervine in the presence of each other were detd. qualitatively by I. I is a good method for the evaluation of the rate of sapon. of II and the rate of veratridine sapon. in 2N NaOH is shown. The type of alkamine component of veratridine, germerine, and protoveratridine can be detd. by oscillograms which show that the cuts developed after hydrolysis in every case agree in the shape and the position with the cuts of corresponding alkamines.

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ACCESSION NUMBER: 1958:89904 CAPLUS
DOCUMENT NUMBER: 52:89904
ORIGINAL REFERENCE NO.: 52:15833e
TITLE: Erythromycin
AUTHOR(S): Anon.
SOURCE: Ann. pharm. franc. (1958), 16, 72-7
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB Unavailable

L17 ANSWER 37 OF 43 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1958:89903 CAPLUS
DOCUMENT NUMBER: 52:89903
ORIGINAL REFERENCE NO.: 52:15833d-e
TITLE: Pro pharmacopeia. Streptomycin
AUTHOR(S): Anon.
SOURCE: Ann. pharm. franc. (1958), 16, 66-72
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable

AB Description, method of assay, and handling of streptomycin as proposed for incorporation in the French pharmacopeia.

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ACCESSION NUMBER: 1958:79226 CAPLUS
DOCUMENT NUMBER: 52:79226
ORIGINAL REFERENCE NO.: 52:140782-h
TITLE: Trichloroacetates of several alkaloids
AUTHOR(S): Poethke, W.; Kuntze, Martin
CORPORATE SOURCE: Friedrich Schiller Univ., Jena, Germany
SOURCE: Pharm. Zentralhalle (1957), 95, 463-6
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable

AB The singular behavior of jervine trichloroacetate, which evolves $\text{CCl}_3\text{CO}_2\text{H}$ (I) on melting or on long heating at 100.degree., occasioned the examn. of several other alkaloid trichloroacetates (II). Ephedrine (III) (0.5 g.) and 0.6 g. I dissolved in 4 ml. water by heating, cooled, rubbed, and the ppt. recrystd. from a small amt. of hot water gave III salt of I, m. 118-24.degree. (with considerable swelling). Similarly were prepd. the following salts of I d,l-III, m. 118-24.degree. (with considerable swelling); quinine di-I, m. 116-20.degree. (unsharp); brucine, m. 131-4.degree. (unsharp); strychnine (IV), m. 281-3.degree. (m.p. of IV since I was evolved between 250-60.degree.). Cond. measurements established that the II were strong electrolytes and true salts.

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ACCESSION NUMBER: 1958:79225 CAPLUS
DOCUMENT NUMBER: 52:79225
ORIGINAL REFERENCE NO.: 52:140782-f
TITLE: Methyl-naphthoquinone and methyl-naphthoquinone sodium bisulfite (vitamin K)
AUTHOR(S): Hahn, I.; Scheunert, A.; Seel, H.
CORPORATE SOURCE: Anstalt Vitaminforsch. Vitaminprüfung, Potsdam-Rehbrücke, Germany
SOURCE: Pharm. Zentralhalle (1956), 95, 138-43
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable

AB A description of menadione and menadione Na bisulfite as they will appear in a supplement to the German pharmacopeia (D.A.-B. VI). Most of the data correspond to those in U.S.P. XV, but in addn. color tests are described.

L17 ANSWER 40 OF 43 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1957:40885 CAPLUS
DOCUMENT NUMBER: 51:40885
ORIGINAL REFERENCE NO.: 51:76550-f
TITLE: Alkaloids in Veratrum album var. lobelianum. I. Isolation and separation
AUTHOR(S): Tomko, J.; Dvorakova, B.; Bauer, S.; Mokry, J.
CORPORATE SOURCE: Chem. ustav, Slovenska Akad. Vied, Bratislava, Czech.
SOURCE: Chem. zvesti (1956), 10, 642-8
DOCUMENT TYPE: Journal
LANGUAGE: German

AB The total alkaloids in V. album var. lobelianum, found in eastern Slovakia on "Cerhovske pohor.akte.i" were detd. by gravimetric method and found to be 1.39-1.53%. From alkalines by the C_6H_6 extn. jervine, m. 247-8.degree., $[\alpha]_D^{22}$.degree. = -150 \pm 3.degree., was isolated. From glucoalkaloids by EtOH extn. after C_6H_6 extn. pseudojervine, m. 293-304.degree., $[\alpha]_D^{22}$.degree. = -132 \pm 3.degree., was isolated.

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ACCESSION NUMBER: 1957:40884 CAPLUS
DOCUMENT NUMBER: 51:40884
ORIGINAL REFERENCE NO.: 51:76550-d
TITLE: Enrichment of corn-steep liquor and molasses by the biomass and the metabolic products of lactobacillus in the formation of chlortetracycline
AUTHOR(S): Belik, E.; Zelinka, J.
CORPORATE SOURCE: Vyskumny ustav antibiotik, Rostoky, Czech.
SOURCE: Chem. zvesti (1956), 10, 593-8
DOCUMENT TYPE: Journal
LANGUAGE: German

AB By lab. fermentation the production of chlortetracycline (I) was increased maximally by 10% and 18%, if corn-steep liquor (II) and molasses (III) were fermented completely by the inoculation of Lactobacillus delbrückii S-54. If the ratio of II to III was 2:5 the production of I was increased from 1200 .gamma./ml. to 1600-1700 .gamma./ml.

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ACCESSION NUMBER: 1957:25595 CAPLUS
 DOCUMENT NUMBER: 51:25595
 ORIGINAL REFERENCE NO.: 51:51014,51014a-b
 TITLE: Initial study of the structure of a new antibiotic, congoicidine
 AUTHOR(S): Julia, Marc; Joseph, Nicole
 SOURCE: Compt. rend. (1956), 243, 961-4
 DOCUMENT TYPE: Journal
 LANGUAGE: Unavailable

AB Congoicidine (I) is progressively degraded in base to C15H20O3N6 (II), NH₃, and glycoxyamide (III). Further hydrolysis of II gave C15H19O4N5 (IV) and NH₃. More drastic degradation of IV gave C12H14O3N4 (V) and .beta.-alanine. Thus, I was given the formula C18H26O3N10; HCl salt, m. 228.degree.; H2SO4 salt, m. 288.degree.; methyl orange salt, m. 224.degree.; picrate, m. 273.degree.. I in N NaOH at 20.degree. evolved NH₃ and solid II, m. 263.degree.; picrate, m. 242.degree.; benzoate, m. 265.degree.. The filtrate was neutralized to give III; picrate, m. 218.degree.; HCl salt, m. 210.degree.. II in boiling N NaOH evolved NH₃ and the solid IV sepd. as the monohydrate, m. 167.degree.; picrate, m. 250.degree.. If IV were boiled in 10N NaOH 2.5 hrs., then acidified with H2SO4, V.H2SO4, m. 240.degree., was obtained. .beta.-Alanine was also found in the mixt.

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ACCESSION NUMBER: 1957:25594 CAPLUS
 DOCUMENT NUMBER: 51:25594
 ORIGINAL REFERENCE NO.: 51:51009-1,51014a-1
 TITLE: Jervine. X. Quaternary dihydro-1,3-oxazine salts as intermediates in the jervine rearrangement
 AUTHOR(S): Wintersteiner, O. P.; Moore, M. L.
 CORPORATE SOURCE: Squibb Inst. for Med. Research, New Brunswick, NJ
 SOURCE: J. Am. Chem. Soc. (1956), 78, 6193-9
 DOCUMENT TYPE: Journal
 LANGUAGE: Unavailable

AB Cf. C.A. 50, 13057g. N-Acetyljervine (4.88 g.) in 125 cc. abs. MeOH satd. at 0.degree. with gaseous HCl kept 1 hr. at room temp. and evapd. to dryness in vacuo, the residue distributed between 500 cc. CHCl₃ and 300 cc. H₂O, the aq. layer extd. with 75 cc. CHCl₃, the combined CHCl₃ exts. washed with N HCl, aq. Na₂CO₃, and H₂O, dried, and evapd. to dryness, and the residue (2.8 g.) recrystd. from MeOH-EtOAc yielded 1.56 g. N-acetyljervine, m. 203-4.degree. (all m.ps. are cor.); the fine cryst. ppt. which had appeared in the aq. phase filtered and washed with cold H₂O gave 1.65 g. quaternary chloride (I) (R = H and X = Cl) (III), m. 244-6.degree.; 2nd crop, m. 246-50.degree., 381 mg. II in AcOH ozonized, dild. with H₂O, and distd., and the distillate treated with alc. dimedon gave only a few mg. trimeric self-condensation product of dimedon, m. 175-7.degree.. II (50 mg.) in 5 cc. MeOH treated at room temp. dropwise with 6 cc. 2N Na₂CO₃, dild. with 30 cc. H₂O, and extd. with Et₂O, and the ext. worked up yielded 32 mg. jervine 17-monoacetate, platelets, m. 250-3.degree. (from Me₂CO-Et₂O-pentane), [.alpha.]D₂₅ -134.degree. (c 0.861, CHCl₃). II (1.64 g.) in 150 cc. warm EtOH dild. with 12 cc. H₂O, the soln. cooled, added to 960 mg. prerduced PtO₂ in 10 cc. EtOH, and hydrogenated 70 min., the cryst. ppt. dissolved by adding 150 cc. H₂O with slight warming, the soln. filtered from the catalyst and concd. in vacuo to a small vol., and the ppt. isolated by centrifuging gave 989 mg. HCl salt (III) of the tertiary base (IV) of II, m. 312-13.degree. (sometimes up to 320.degree.), [.alpha.]D₂₅ -69.degree. (c 0.401, 80% EtOH). III (316 mg.) in 50 cc. MeOH and 20 cc. H₂O treated with excess aq. NaHCO₃ with stirring and the product isolated with CHCl₃ yielded 212 mg. IV. 0.5H₂O, square platelets, m. 154-9.degree., [.alpha.]D₂₅ -80.degree. (c 0.524, CHCl₃). III treated with N KOH in MeOH at room temp. or reflux (3 hrs.) gave IV. III refluxed 2 hrs. with 3:1:1 EtOH-H₂O-concd. HCl or refluxed 4 hrs. with 1% 2,4-(O₂N)C₆H₃NH₂ in 1% HCl was recovered unchanged. IV (48 mg.) in 2.5 cc. 10% AcOH refluxed 3 hrs. with an equal vol. concd. HCl, basified, and extd. with CHCl₃ yielded 24 mg. unchanged IV, m. 148-53.degree.. IV treated with Ac₂O-pyridine gave IV 3,23-diacetate (V), clusters of needles, m. 201-2.degree. (from aq. and then abs. MeOH), [.alpha.]D₂₅ -77.degree. (c 0.826). V treated 18 hrs. at room temp. with 5% KOH in MeOH yielded IV. 0.5H₂O. V in Et₂O treated with HCl in Et₂O gave V.HCl, m. 247-52.degree. (from aq. MeOH). V in EtOH treated with 5N HCl and the EtOH boiled off quickly gave O-deacetylated III. 2H₂O. IV (42 mg.) treated with 2 cc. HClO₄-contg. acetylalysis reagent and the ppt. centrifuged after short standing and washed with EtOH gave V.HClO₄, m. 281-3.degree. (from MeOH), [.alpha.]D₂₅ -60.degree. (c 0.443, 80% EtOH). I (R = Ac, X = ClO₄) (192 mg.) in 30 cc. 93% EtOH hydrogenated over 123 mg. prerduced PtO₂ until 1.3 mole equivs. H had been absorbed gave V.HClO₄, m. 265-7.degree., which decompd. with NaHCO₃ yielded V. V (201 mg.) in 7 cc. Ac₂O, 3 cc. AcOH, and 0.1 cc. concd. H₂SO₄ kept 46 hrs. at room temp., the soln. cooled, basified weakly with NaHCO₃, and extd. with CHCl₃, and the aq. phase distd. (1/3) into 25 cc. 2,4-(O₂N)C₆H₃NH₂

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reagent yielded 10 mg. 2,4-(O₂N)C₆H₃NH₂:CHMe, m. 158-60.degree. (from abs. EtOH); the CHCl₃ exts. washed, dried, and evapd., and the yellow resinous residue (152 mg.) dissolved in C₆H₆ and chromatographed gave 21 mg. V and then 11-oxoveratramine 3,23-diacetate (VI), needles, m. 238-40.5.degree. (from EtOAc), [.alpha.]D₂₅ -113.degree. (c 0.586, CHCl₃). VI (15 mg.) treated with Ac₂O-pyridine gave the N-Ac deriv., m. 242-4.degree., [.alpha.]D₂₄ -27.degree. (c 0.481, CHCl₃). VI (2.0 g.) in 28 cc. Ac₂O, 12 cc. AcOH, and 0.2 cc. concd. H₂SO₄ kept 17 hrs. at room temp., poured into H₂O and crushed ice, basified slightly with NaHCO₃, and extd. with CHCl₃, and the residue (1.81 g.) from the ext. chromatographed from C₆H₆ on 50 g. Al₂O₃ gave after small amts. of unidentified material over 1 g. of solid which triturated with MeOH yielded 30 mg. VII (R = Ac) (VIIa), m. 208-9.degree. (decompn.) (from MeOH). VIIa (4.8 mg.) in 1 cc. EtOH and 1 cc. N HCl refluxed 4 hrs., cooled, and treated with excess BaCl₂ gave 1.60 mg. BaSO₄. VIIa (2.10 mg.) in 5 cc. EtOH contg. a small drop of 5% alc. KOH showed after 1 hr. an absorption max. at 250 m.m.u.. Further elution of the chromatographic column with MeOH and lyophilizing of the eluate gave Na salt (VII) of VIIa. VII (314 mg.) in 60 cc. 1:1:1 EtOH-H₂O-20% HCl refluxed 1 hr., brought to pH 8 with Na₂CO₃, washed with CHCl₃, reacidified, and treated with BaCl₂ gave 86 mg. BaSO₄; the residue (248 mg.) from the CHCl₃ washing treated with Ac₂O-pyridine yielded 214 mg. product which chromatographed on Al₂O₃ yielded 100 mg. stereoisomer of diacetyljervine, m. 226-30.degree. (from aq. EtOH), [.alpha.]D₂₄ 1.degree. (c 0.830, CHCl₃).

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(FILE 'HOME' ENTERED AT 12:09:47 ON 26 NOV 2001)

FILE 'REGISTRY' ENTERED AT 12:09:55 ON 26 NOV 2001

L1 STRUCTURE UPLOADED
L2 0 S L1
L3 308 S L1 FULL
L4 676470 S 6/NR
L5 5 S L1 SAM SUB=L4
L6 STRUCTURE UPLOADED
L7 0 S L6 SAM SUB=L4
L8 4 S L6 FULL SUB=L4
L9 STRUCTURE UPLOADED
L10 3 S L9
L11 217 S L9 FULL

FILE 'CAPLUS' ENTERED AT 12:16:45 ON 26 NOV 2001

L12 12 S L11/THU
L13 14 S L11/USES
L14 14 S L12 OR L13

FILE 'USPATFULL' ENTERED AT 12:20:45 ON 26 NOV 2001

L15 6 S L11

FILE 'CAOLD' ENTERED AT 12:23:01 ON 26 NOV 2001

L16 23 S L11
 SEL AN 1-

FILE 'CAPLUS' ENTERED AT 12:23:26 ON 26 NOV 2001

L17 43 S E1-E23/OREF

FILE 'REGISTRY' ENTERED AT 12:27:27 ON 26 NOV 2001

L18 1 S CONGOCIDINE/CN

FILE 'CAPLUS' ENTERED AT 12:28:08 ON 26 NOV 2001

L19 2095 S HEDGEHOG
L20 713 S HEDGEHOG? PROTEIN?
L21 13 S L20(L)THU
L22 13 S L21 NOT L14
L23 0 S L22 NOT PY>=1998